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Notes

REFERENCES CITED

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- Abbot, H.L., 1878, On the velocity of transmission of earth waves: New Haven, Connecticut, American Journal of Science and the Arts, v. 15, p. 178–184. [3]
- Abramovitz, T., Landes, M., Thybo, H., Jacob, B., and Prodehl, C., 1999, Crustal velocity structure across the Tornquist and Iapetus suture zones—A comparison based on MONA LISA and VARNET data: *Tectonophysics*, v. 314, p. 69–82, doi:10.1016/S0040-1951(99)00237-1. [9]
- Abramovitz, T., Thybo, H., and MONA LISA Working Group, 1998, Seismic structure across the Caledonian Deformation Front along MONA LISA profile 1 in the southeastern North Sea: *Tectonophysics*, v. 288, p. 153–176, doi:10.1016/S0040-1951(97)00290-4. [9]
- Achauer, U., Evans, J.R., and Stauber, D.A., 1988, High-resolution seismic tomography of compressional wave velocity structure at Newberry volcano, Oregon Cascade Range: *Journal of Geophysical Research*, v. 93, p. 10,135–10,147. [8]
- Achauer, U., Maguire, P.K.H., Mechic, J., Green, W.V., and the KRISP Working Group, 1992, Some remarks on the structure and geodynamics of the Kenya rift, in Ziegler, P.A., ed., *Geodynamics of rifting, volume II: case history studies on rifts: North and South America and Africa: Tectonophysics*, v. 213, p. 257–268. [9]
- Achauer, U., and the KRISP Working Group, 1994, New ideas on the Kenya rift based on the inversion of the combined dataset of the 1985 and 1989/1990 seismic tomography experiments, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., *Crustal and upper mantle structure of the Kenya rift: Tectonophysics*, v. 236, p. 305–329, doi:10.1029/JB093iB09p10135. [9]
- Agamemnone, G., 1937, I risultati scientifici d'una grande mina: Renili'e ontri iell'Accademia Nazionale dei Lincei, Cl. Sci. Fis., Mat. e Nat., (6) 25, p. 601–607. [3]
- Agger, H.E., and Carpenter, E.W., 1965, A crustal study in the vicinity of the Eskdalemuir seismological array station: *Geophysical Journal of the Royal Astronomical Society*, v. 9, p. 69–83. [6]
- Aichroth, B., Ye, S., Feddersen, J., Maistrello, M., and Pedone, R., 1990, A compilation of data from the 1986 European Geotraverse experiment (main line) from Genova to Kiel—Tables. Open-File Report 90-1, Geological Institute, University of Karlsruhe, 115 p. [8]
- Aichroth, B., Prodehl, C., and Thybo, H., 1992, Crustal structure along the central segment of the EGT, in Freeman, R., and Mueller, St., eds., *The European Geotraverse, Part 8: Tectonophysics*, v. 207, p. 43–64. [2] [8]
- Aki, K., and Richards, P.G., 1980, *Quantitative seismology; theory and methods (2 volumes)*: San Francisco, W.H. Freeman, 932 p. [2] [10]
- Aki, K., and Richards, P.G., 2002, *Quantitative seismology, Second Edition*: Sausalito, California, University Science Books. [2] [10]
- Alden, A., 2010, The Greatest Science Program in History: <http://geology.about.com/cs/escibasics/a/aa101203a.htm>. [7] [8]
- Aldrich, L.T., Asada, T., Bass, M.N., Hales, A.L., Tuve, M.A., and Wetherill, G.W., 1960, The Earth's Crust: Washington, D.C., Carnegie Institution, Year Book, v. 59, p. 202–208. [6]
- Al-Kindi, S., White, N., Sinha, M., England, R., and Tiley, R., 2003, Crustal trace of a hot convective sheet: *Geology*, v. 31, p. 207–210, doi:10.1130/0091-7613(2003)031<0207:CTOAH>2.0.CO;2. [8]
- Allen, A., 1966, Seismic refraction investigations in the Scotia Sea: *Scientific report of British Antarctica Survey no. 55*. [6]
- Allis, R.G., 1986, Mode of crustal shortening adjacent to the Alpine fault, New Zealand: *Tectonics*, v. 5, p. 15–32, doi:10.1029/TC005i001p00015. [9]
- Allmendinger, R.W., Farmer, H., Hauser, E., Sharp, J., Von Tish, D., Oliver, J., and Kaufman, S., 1986, Phanerozoic tectonics of the Basin and Range—Colorado Plateau transition from COCORP data and geologic data: a review, in Barazangi, M., and Brown, L., eds., *Reflection seismology: the continental crust*: American Geophysical Union, Geodynamics Series, v. 14, p. 257–267. [2] [8]
- Allmendinger, R.W., Hauge, T.A., Hauser, E.C., Potter, C.J., Klemperer, S.L., Nelson, K.D., Knuepfer, P., and Oliver, J., 1987, Overview of the COCORP 40°N transect, western United States: the fabric of an orogenic belt: *Geological Society of America Bulletin*, v. 98, p. 308–319, doi:10.1130/0016-7606(1987)98<308:OOTCNT>2.0.CO;2. [2] [8] [9]
- ALP 2002 Working Group, 2003, The ALP 2002 refraction experiment and its relation to TRANSALP, in Conference on Seismic exploration of the Alpine lithosphere, Trieste Italy, 10–12 February 2003, extended abstract, www.alp2002.info/bibliography/Transalp03_abstr.htm. [10]
- Alpine Explosion Seismology Group, 1975, A lithospheric seismic profile along the axis of the Alps, 1975—I. First results: PAGEOPH, v. 114, p. 1109–1130, doi:10.1007/BF00876205. [2] [7]
- Alsdorf, D., Makovsky, Y., Zhao, W., Brown, L.D., Nelson, K.D., Klemperer, S.L., Hauck, M., Ross, A., Cogan, M., Clark, M., Che, J., and Kuo, J., 1998, INDEPTH (International Deep Profiling of Tibet and the Himalaya) multichannel seismic reflection data: description and availability: *Journal of Geophysical Research*, v. 103, p. 26,993–26,999. [9]
- Alvarez, L.W., Alvarez, W., Asaro, F., and Michel, H.V., 1980, Extraterrestrial cause for the Cretaceous–Tertiary extinction: *Science*, v. 208, p. 1095–1108, doi:10.1126/science.208.4448.1095. [9]
- Alvarez-Marron, J., Perez-Estaun, A., Danobeitia, J.J., Pulgar, J.A., Martinez Catalan, J.R., Marcos, A., Bastida, F., Ayarza Arribas, P., Aller, J., Gallart, J., Gonzales-Lodeiro, F., Banda, E., Comas, M.C., and Cordoba, D., 1996, Seismic structure of the northern continental margin of Spain from ESCIN deep seismic profiles: *Tectonophysics*, v. 264, p. 355–363. [2] [9]
- Alvarez-Marron, J., Rubio, E., and Torne, M., 1997, Subduction-related structures in the North Iberian Margin: *Journal of Geophysical Research*, v. 102, p. 22,497–22,511, doi:10.1029/97JB01425. [9]
- ANCORP Working Group, 1999, Seismic reflection image revealing offset of Andean subduction-zone earthquake locations into oceanic mantle: *Nature*, v. 397, p. 341–344, doi:10.1038/16909. [9]
- ANCORP Working Group, 2003, Seismic imaging of a convergent continental margin and plateau in the central Andes (Andean Continental Research Project 1996 (ANCORP'96)): *Journal of Geophysical Research*, v. 108, B7, 2328, doi:10.1029/2002JB001771. [2] [9]
- Anderson, D.L., 1971, The plastic layer of the earth's mantle, in Wilson, T., ed., *Continents adrift: Readings from Scientific American*: San Francisco, Freeman and Co., p. 28–35. [7]
- Anderson, R.N., and Noltmier, H.C., 1973, A model for the horst and graben structure of mid-ocean ridge crests based upon spreading velocity and basalt delivery to the oceanic crust: *Geophysical Journal of the Royal Astronomical Society*, v. 34, p. 137–147. [7]
- Angenheister, G., Bögel, H., Gebrande, H., Giese, P., Schmidt-Thomé, P., and Zeil, W., 1972, Recent investigations of surficial and deeper crustal structure of the eastern and southern Alps: *Geologische Rundschau*, v. 61, p. 349–395, doi:10.1007/BF01896323. [6]
- Angenheister, G.H., 1927, Beobachtungen bei Sprengungen: *Zeitschrift für Geophysik*, v. 3, p. 28–33. [2] [3]
- Angenheister, G.H., 1928, *Seismik in Geiger, G., and Scheel, K., eds., Handbuch d. Physik*: Berlin, Springer, v. VI, p. 566–622. [2] [3]
- Angenheister, G.H., 1935, Geophysical exploration in the uppermost layer of the Earth's crust and their practical importance: *Research Progress 1*, p. 126–131. [3]
- Angenheister, G.H., 1942, Ausbreitung der Bodenschwingungen bei grossen Sprengungen und oberflächennahem Erdstoß: *Göttingische Gelehrte Anzeige* 204, p. 7. [3]
- Angenheister, G.H., 1950, Fortschreitende elastische Wellen in planparallelen Platten: Post mortem veröffentlicht durch O. Förtsh: *Gerlands Beiträge zur Geophysik*, v. 61, no. 4, p. 296–308. [3]
- Ankeny, L.A., Braile, L.W., and Olsen, K.H., 1986, Upper crustal structure beneath the Jemez Mountains volcanic field, New Mexico, determined by three-dimensional inversion of seismic refraction and earthquake data: *Journal of Geophysical Research*, v. 91, p. 6188–6198. [2] [7] [8] [9]
- Ansorge, J., 1968, Die Struktur der Erdkruste an der Westflanke der Zone von Ivrea: *Schweizerische Mineralogische und Petrographische Mitteilungen*, v. 48, p. 247–254. [6]
- Ansorge, J., 1975, Die Feinstruktur des obersten Erdmantels unter Europa und dem mittleren Nordamerika [Ph.D. thesis]: University of Karlsruhe, 111 p. [2] [6] [7]
- Ansorge, J., and Mueller, S., 1971, The fine structure of the upper mantle in Europe and in North America: *Proceedings of the 12th General Assembly of the European Seismological Commission (Luxembourg 1970)*, Comm. A-13 de l'Observatoire Royal de Belgique, Sér. Géophys. no. 101, p. 196–197. [7]
- Ansorge, J., and Mueller, S., 1979, The structure of the earth's crust and upper mantle from controlled source observations: *Schweizerische Mineralogische und Petrographische Mitteilungen*, v. 59, p. 133–140. [2] [7]

- Ansorge, J., Emter, D., Fuchs, K., Lauer, J.P., Mueller, St., and Peterschmitt, E., 1970, Structure of the crust and upper mantle in the rift system around the Rhinegraben, in Illies, H., and Mueller, St., eds., *Graben problems*: Stuttgart, Schweizerbart, p. 191–197. [7]
- Ansorge, J., Bonjer, K.-P., and Emter, D., 1979a, Structure of the uppermost mantle from long-range seismic observations in southern Germany and the Rhinegraben area: *Tectonophysics*, v. 56, p. 31–48, doi:10.1016/0040-1951(79)90005-2. [4]
- Ansorge, J., Mueller, St., Kissling, E., Guerra, I., Morelli, C., and Scarascia, S., 1979b, Crustal cross section across the zone of Ivrea-Verbano from the Valais to the Lago Maggiore: *Bollettino di Geofisica Teorica e Applicata*, v. 21, p. 149–157. [2] [7]
- Ansorge, J., Prodehl, C., and Bamford, D., 1982, Comparative interpretation of explosion seismic data: *Journal of Geophysics*, v. 51, p. 69–84. [7] [8] [10]
- Ansorge, J., Blundell, D., and Mueller, S., 1992, Europe's lithosphere—seismic structure, in Blundell, D., Freeman, R., and Mueller, S., eds., *A continent revealed—the European Geotraverse*: Cambridge University Press, p. 33–69. [2] [7] [8]
- Antoine, J.W., and Ewing, J.I., 1963, Seismic refraction measurements on the margins of the Gulf of Mexico: *Journal of Geophysical Research*, v. 68, p. 1975–1996, doi:10.1029/JZ068i007p01975. [5] [6]
- Aoki, H., Tada, T., Sasaki, Y., Ooida, T., Muramatu, I., Shimamura, H., and Furuya, I., 1972, Crustal structure in the profile across central Japan as derived from explosion seismic observations: *Journal of Physics of the Earth*, v. 20, p. 197–223. [2] [6] [9] [10]
- Aric, K., Hirscheleber, H.B., Menzel, H., and Weigel, W., 1970, Über die Struktur der Großen Meteor-Bank nach seismischen Ergebnissen: *Meteor Forschungsergebnisse*, Deutsche Forschungsgemeinschaft: Borntraeger, Berlin-Stuttgart, Reihe C Geologie und Geophysik, C3, p. 48–64. [6]
- Arita, K., Ikawa, T., Yamamoto, A., Saito, M., Nishida, Y., Satoh, H., Kimura, G., Watanabe, T., Ikawa, T., and Kuroda, T., 1998, Crustal structure and tectonics of the Hikada collision zone, Hokkaido (Japan), revealed by vibroseis seismic reflection and gravity surveys: *Tectonophysics*, v. 290, p. 197–210, doi:10.1016/S0040-1951(98)00018-3. [2] [9]
- Arlitt, R., Patzwahl, R., and Zeyen, H., 1993, 1-D modelling of the lithospheric structure beneath the western Iberian peninsula using the the ILIHA-DSS data, in Mezcua, J., and Carreno, E., eds., *Iberian lithosphere, heterogeneity and anisotropy (ILIHA)*: Monografia no. 10, Instituto Geografico Nacional, Madrid, Spain, p. 229–249. [8]
- Asada, T., and Shimamura, H., 1976, Observation of earthquakes and explosions at the bottom of the western Pacific: Structure of oceanic lithosphere revealed by Longshot experiment, in Sutton, G.H., Manghnani, M.H., Moberly, R., and McAffe, E.U., eds., *The geophysics of the Pacific Ocean basin and its margin*: American Geophysical Union, Geophysical Monograph 19, p. 135–154. [2] [7]
- Asada, T., and Shimamura, H., 1979, Long-range refraction experiments in deep ocean: *Tectonophysics*, v. 56, p. 67–82, doi:10.1016/0040-1951(79)90009-X. [2] [7]
- Asada, T., Steinhart, J.S., Rodriguez, A., Tuve, M.A., and Aldrich, L.T., 1961, The earth's crust: Washington, Carnegie Institution, Year Book, v. 60, p. 244–250. [6]
- Asada, T., Shimamura, H., Asano, S., Kobayashi, K., and Tomoda, Y., 1983, Explosion experiments on long-range profiles in the northwestern Pacific and the Mariana Sea, in Hilde, T.W.C., and Ueda, S., eds., *Geodynamics of the Western Pacific–Indonesian Region*, American Geophysical Union, Geodynamics Series, v. 11, p. 105–120. [2] [7]
- Asano, S., Okada, H., Yoshii, T., Yamamoto, K., Hasegawa, T., Ito, K., Suzuki, S., Ikami, A., and Hamada, K., 1979, Crust and upper mantle structure beneath northeastern Honshu, Japan, as derived from explosion seismic observations: *Journal of the Physics of the Earth*, v. 27 Suppl., p. 1–13. [7]
- Asano, S., Yamada, T., Suyehiro, K., Yoshii, T., Misawa, Y., and Iizuka, S., 1981, Crustal structure in a profile off the Pacific coast of northeastern Japan by the refraction method with ocean bottom seismometers: *Journal of the Physics of the Earth*, v. 29, p. 267–281. [7] [9]
- Asano S., Yoshii, T., Kubota, S., Sasaki, Y., Okada, H., Suzuki, S., Masuda, T., Mutakami, H., Nishide, N., and Inatani, H., 1982, Crustal structure of Izu Peninsula, central Japan, as derived fro explosion seismic observations, 1. Mishima–Shimoda Profile: *Journal of the Physics of the Earth*, v. 30, p. 367–387. [2] [7]
- Ashcroft, W.A., 1970, Crustal structure of the South Shetland Island and Bransfield Strait: Scientific report of British Antarctica Survey no. 66. [6]
- Asudeh, I., Green, A.G., and Forsyth, D.A., 1988, Canadian expedition to study the Alpha Ridge complex: results of the seismic refraction survey: *Geophysical Journal*, v. 92, p. 283–301, doi:10.1111/j.1365-246X.1988.tb01140.x. [8]
- Asudeh, I., Anderson, F., Parmelee, J., Vishnubhatla, S., Munro, P., and Thomas, J., 1992, A portable refraction seismograph PRS1: Geological Survey of Canada Open-File Report 2478, p. 34 p. [8]
- Atwater, T., 1970, Implications of plate tectonics for the Cenozoic tectonic evolution of western North America: *Geological Society of America Bulletin*, v. 81, p. 3513–3536, doi:10.1130/0016-7606(1970)81[3513:IOPTFT]2.0.CO;2. [9]
- Avedik, F., and Hieke, W., 1981, Reflection seismic profiles from the Central Ionian Sea (Mediterranean) and their geodynamic interpretation. *Meteor Forschungsergebnisse*, Deutsche Forschungsgemeinschaft: Berlin-Stuttgart, Borntraeger, Reihe C Geologie und Geophysik, C34, p. 49–64. [2] [7]
- Avedik, F., Renard, V., Buisine, D., and Cornic, J.-Y., 1978, Ocean bottom refraction seismograph (OBRS): *Marine Geophysical Researches*, v. 3, p. 357–379, doi:10.1007/BF00347673. [2] [7]
- Avedik, F., Geli, L., Gaulier, J.M., and Le Formal, J.P., 1988, Results from three refraction profiles in the northern Red Sea (above 25°N) recorded with an ocean bottom vertical seismic array, in LePichon, X., and Cochran, J.R., eds., *The Gulf of Suez and Red Sea rifting*: *Tectonophysics*, v. 153, p. 89–101. [8]
- Avedik, F., Renard, V., Allenou, J.P., and Morvan, B., 1993, “Single bubble” air-gun array for deep exploration: *Geophysics*, v. 58, p. 366–382, doi:10.1190/1.1443420. [8]
- Avedik, F., Hirn, A., Renard, V., Nicolich, R., Olivet, J.L., Sachpazi, M., 1996, “Single-bubble” marine source offers new perspectives for lithospheric exploration: *Tectonophysics*, v. 267, p. 57–71, doi:10.1016/S0040-1951(96)00112-6. [10]
- Averill, M.G., 2007, A lithospheric investigation of the southern Rio Grande rift [Ph.D. thesis]: University of Texas at El Paso, 141 p. [2] [10]
- Ayarza, P., Martínez-Catalán, J.R., Gallart, J., Pulgar, J.A., and Danobeitia, J.J., 1998, ESCIN 3.3: A seismic image of the Variscan crust in the hinterland of NW Iberian Massif: *Tectonics*, v. 17, p. 171–186, doi:10.1029/97TC03411. [9]
- Azbel, I.Ya., Buyanov, A.F., Ionkin, V.T., Sharov, N.V., and Sharova, V.P., 1989, Crustal structure of the Kola peninsula from inversion of deep seismic sounding data, in Freeman, R., Knorrung, M. von, Korhonen, H., Lund, C., and Muller, St., eds., *The European Geotraverse, Part 5: The POLAR Profile*: *Tectonophysics*, v. 162, p. 87–99. [2] [8]
- Baba, T., and Cummins, R.P., 2005, Contiguous rupture areas of two Nankai Trough earthquakes revealed by high-resolution tsunami waveform inversion: *Geophysical Research Letters*, v. 32, doi:10.1029/2004GL022320. [10]
- BABEL Working Group, 1991, Reflectivity of a Proterozoic shield: examples from BABEL seismic profiles across Fennoscandia, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: American Geophysical Union, Geodynamics Series, v. 22, p. 77–86. [2] [8] [9]
- BABEL Working Group, 1993a, Deep seismic reflection/refraction interpretation of crustal structure along BABEL profiles A and B in the southern Baltic Sea: *Geophysical Journal International*, v. 112, p. 325–343, doi:10.1111/j.1365-246X.1993.tb01173.x. [8]
- BABEL Working Group, 1993b, Integrated seismic studies of the Baltic shield using data in the Gulf of Bothnia region: *Geophysical Journal International*, v. 112, p. 305–324, doi:10.1111/j.1365-246X.1993.tb01172.x. [8]
- Babuska, V., Plomerova, J., and the Bohemian Working Group, 2003, Seismic experiment searches for active magmatic source in deep lithosphere, central Europe: *Eos (Transactions, American Geophysical Union)*, v. 84, p. 409, 416–417. [10]
- Baier, B., Berckhemer, H., Gajewski, D., Green, R., Grimsel, C., Prodehl, C., and Vees, R., 1983, Deep seismic sounding in the area of the Damara Orogen (Namibia), in Martin, H., and Eder, F.W., eds., *Intracontinental Fold Belts*: Berlin-Heidelberg, Springer, p. 885–900. [2] [7] [9]
- Bakun, W.H., and Lindt, A.G., 1985, The Parkfield, California, earthquake prediction experiment: *Science*, v. 229, p. 619–624, doi:10.1126/science.229.4714.619. [9] [10]
- Baldridge, W.S., Braile, L.W., Fehler, M.C., and Moreno, F.A., 1997, Science and sociology butt heads in tomography experiment in sacred mountains. *Eos (Transactions, American Geophysical Union)*, v. 78, p. 417, 422–423. [2] [9]

- Bamford, S.A.D., 1971, An interpretation of first-arrival data from the Continental Margin refraction experiment: *Geophysical Journal of the Royal Astronomical Society*, v. 24, p. 213–229. [2] [6] [8]
- Bamford, S.A.D., 1972, Evidence for a low-velocity zone in the crust beneath the western British Isles: *Geophysical Journal of the Royal Astronomical Society*, v. 30, p. 101–105. [6]
- Bamford, D., 1973, Refraction data in western Germany—a time-term interpretation: *Zeitschrift für Geophysik*, v. 39, p. 907–927. [2] [7]
- Bamford, D., Faber, S., Fuchs, K., Jacob, B., Kaminski, W., King, R., Nunn, K., Prodehl, C., and Willmore, P., 1976, A lithospheric seismic profile in Britain—I. Preliminary results: *Geophysical Journal of the Royal Astronomical Society*, v. 44, p. 145–160. [2] [7]
- Bamford, D., Nunn, K., Prodehl, C., and Jacob, B., 1978, LISPB IV. Crustal structure of northern Britain: *Geophysical Journal of the Royal Astronomical Society*, v. 54, p. 43–60. [2] [7] [8]
- Bamford, D., Jentsch, M., and Prodehl, C., 1979, P_n anisotropy studies in northern Britain and the eastern and western United States: *Geophysical Journal of the Royal Astronomical Society*, v. 57, p. 397–430. [2] [7]
- Banda, E., and Ansorge, J., 1980, Crustal structure under the central and eastern part of the Betic cordillera: *Geophysical Journal of the Royal Astronomical Society*, v. 63, p. 515–532. [2] [7]
- Banda, E., Ansorge, J., Boloix, M., and Cordoba, D., 1980, Structure of the crust and upper mantle beneath the Balearic islands (western Mediterranean): *Earth and Planetary Science Letters*, v. 49, p. 219–230, doi:10.1016/0012-821X(80)90066-7. [2] [7]
- Banda, E., Danobeitia, J.J., Surinach, E., and Ansorge, J., 1981a, Features of crustal structure under the Canary islands: *Earth and Planetary Science Letters*, v. 55, p. 11–24, doi:10.1016/0012-821X(81)90082-0. [2] [7] [9]
- Banda, E., Surinach, E., Aparicio, A., Sierra, J., and Ruiz de la Parte, E., 1981b, Crust and upper mantle structure of the central Iberian Meseta: *Geophysical Journal of the Royal Astronomical Society*, v. 67, p. 779–789. [7]
- Banda, E., Ranero, C.R., Danobeitia, J.J., and Rivero, A., 1992, Seismic boundaries of the eastern Central Atlantic Mesozoic crust from multichannel seismic data: *Geological Society of America Bulletin*, v. 104, p. 1340–1349, doi:10.1130/0016-7606(1992)104<1340:SBOTEC>2.3.CO;2. [2] [8]
- Banda, E., Gallart, J., Garcia-Duenas, V., Danobeitia, J.J., and Makris, J., 1993, Lateral variation of the crust in the Iberian peninsula: new evidence from the Betic Cordillera: *Tectonophysics*, v. 221, p. 53–66, doi:10.1016/0040-1951(93)90027-H. [8]
- Banda, E., Torné, M., and the Iberian Atlantic Margins Group, 1995, Iberian Atlantic Margins Group investigates deep structure of ocean margins: *Eos (Transactions, American Geophysical Union)*, v. 76, no. 3, p. 25, 28–29. [2] [9]
- Barazangi, M., and Brown, L., eds., 1986a, Reflection seismology: a global perspective: American Geophysical Union, *Geodynamics Series*, v. 13, p. 311 p. [2] [8]
- Barazangi, M., and Brown, L., eds., 1986b, Reflection seismology: The continental crust: American Geophysical Union, *Geodynamics Series*, v. 14, p. 339 p. [2] [8]
- Barchi, M., Minelli, G., Magnani, B., and Mazzotti, A., 2003, Line CROP 03: northern Apennines, *in* Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., 2003 CROP Atlas: seismic reflection profiles of the Italian crust: *Memorie Descrittive della Carta Geologica d'Italia*, v. 62, p. 127–136 [9]
- Barker, D.H.N., Sutherland, R., Henrys, S., and Bannister, S., 2009, Geometry of the Hikurangi subduction thrust and upper plate, North Island, New Zealand: *Geochemistry Geophysics Geosystems*, v. 10, Q02007, doi:10.1029/2008GC002153. [2] [10]
- Barranco, L.M., Ansorge, J., and Banda, E., 1990, Seismic refraction constraints on the geometry of the Ronda peridotitic assif (Betic Cordillera, Spain): *Tectonophysics*, v. 184, p. 379–392, doi:10.1016/0040-1951(90)90450-M. [2] [7]
- Barrett, D.L., Berry, M., Blanchard, J.E., Keen, M.J., and McAllister, R.E., 1964, Seismic studies on the eastern seabord of Canada: the Atlantic coast of Nova Scotia: *Canadian Journal of Earth Science*, v. 1, p. 10–22. [6]
- Barsch, O., and Reich, H., 1930, Seismische Arbeiten in Norddeutschland, Beiträge zur physikalischen Erforschung der Erdrinde, Preuss: Geol. Landesanstalt, Berlin, Heft 3, 58 p. [3]
- Bartels, J., and ten Bruggencate, P., 1953, Astronomie und Geophysik, Landolt Börnstein, 6th ed., vol III: Berlin-Göttingen-Heidelberg, Springer. [10]
- Bartelsen, H., Lueschen, E., Krey, Th., Meissner, R., Schmoll, H., and Walther, Ch., 1982, The combined seismic reflection-refraction investigation of the Urach geothermal anomaly, *in* Haenel, R., ed., The Urach geothermal project (Swabian Alb, Germany): Stuttgart, Schweizerbart, p. 247–262. [2] [7] [8]
- Barton, D.C., 1929, The seismic method of mapping geologic structure: *Geophysical Prospecting: Transactions of the American Institute of Mining and Metallurgical Engineering*, v. 81, p. 572–624. [3]
- Barton, P.J., 1986, Comparison of deep reflection and refraction structures in the North Sea, *in* Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, *Geodynamics Series*, v. 13, p. 297–300. [2] [8]
- Barton, P.J., and Wood, R., 1984, Tectonic evolution of the North Sea basin: crustal stretching and subsidence: *Geophysical Journal of the Royal Astronomical Society*, v. 79, p. 987–1022, doi:10.1111/j.1365-246X.1984.tb02880.x. [6] [8] [9]
- Barton, P.J., Owen, T.R.E., and White, R.S., 1990, The deep structure of the east Oman continental margin: preliminary results and interpretation, *in* Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins: Tectonophysics*, v. 173, p. 319–331. [2] [8]
- Bates, A., and Hall, D.H., 1975, Upper mantle structure in southern Saskatchewan and western Manitoba from Project Edzoe: *Canadian Journal of Earth Science*, v. 12, p. 2134–2144. [6]
- Båth, M., 1960, Crustal structure of Iceland: *Journal of Geophysical Research*, v. 65, p. 1793–1807, doi:10.1029/JZ065i006p01793. [5]
- Batini, F., Cameli, G.M., Lazzarotto, A., and Liotta, D., 2003, Line CROP 18: Southern Tuscany, *in* Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., *CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia*, Roma, v. 62, p. 137–144. [9]
- Bauer, K., Neben, S., Schreckenberger, B., Emmermann, R., Hinz, K., Fechner, N., Gohl, K., Schulze, A., Trumbull, R.B., and Weber, K., 2000, Deep structure of the Namibia continental margin as derived from integrated geophysical studies: *Journal of Geophysical Research*, v. 105, p. 25,829–25,853, doi:10.1029/2000JB900227. [2] [9] [10]
- Bayer, R., et Équipe de Profil Alpes ECORS-CROP, 1987, First results of a deep seismic profile through the western Alps (ECORS-CROP Program): *Comptes rendus de l'Académie de sciences, Paris*, 105, série II, p. 1461–1470. [8]
- Bayer, U., Scheck, M., Rabbel, W., Krawczyk, C.M., Götze, H.-J., Stiller, M., Beilecke, T., Marotta, A.-M., Barrio-Alvers, L., and Kuder, J., 1999, An integrated study of the NE-German Basin: *Tectonophysics*, v. 314, p. 285–307, doi:10.1016/S0040-1951(99)00249-8. [9]
- Bean, C.J., and Jacob, A.W.B., 1990, P-wave anisotropy in the lower lithosphere: *Earth and Planetary Science Letters*, v. 99, p. 58–65, doi:10.1016/0012-821X(90)90070-E. [2] [8]
- Beaudoin, B.C., Perkins, G., Fuis, G.S., and Luetgert, J.H., 1989, Data report for the 1987 seismic-refraction survey, Alaska Range and Fairbanks South deployments: Menlo Park, California, U.S. Geological Survey Open-File Report 89-321, 114 p. [8]
- Beaudoin, B.C., Fuis, G.S., Mooney, W.D., Nockleberg, W.J., and Christensen, N.I., 1992, Thin, low-velocity crust beneath the southern Yukon-Tanana terrane, east-central Alaska: *Journal of Geophysical Research*, v. 97, p. 1921–1942, doi:10.1029/91JB02881. [8]
- Beaudoin, B.C., Fuis, G.S., Lutter, W.J., Mooney, W.D., and Moore, T.E., 1994, Crustal velocity structure of the northern Yukon-Tanana upland, central Alaska: results from TACT refraction/wide-angle reflection data: *Geological Society of America Bulletin*, v. 106, p. 981–1001, doi:10.1130/0016-7606(1994)106<0981:CVSOTN>2.3.CO;2. [8]
- Behnke, C., 1971, Explosion seismology data generalization—examples from the Eastern Alps: *Proceedings of the 12th General Assembly of the European Seismological Commission (Luxembourg 1970)*, Obs. Royal de Belgique, Comm. Sér. A, no 13, Sér. Geophys. 101, p. 177–181. [6]
- Behnke, C., and Giese, P., 1970, Refraction-seismic investigations 1956–1969 to explore the earth's crust in the Alps (in German). Unpublished Open-File Report, Niedersächs. Landesamt f. Bodenforschung, Hannover, and Free University Berlin, p. D1–D43 and p. 1–43. [6]
- Behnke, C., Giese, P., Prodehl, C., de Visintini, G., 1962, Seismic refraction investigations in the Dolomites for the exploration of the earth's crust in the Eastern Alpine area 1961: *Bollettino di Geofisica Teorica e Applicata*, v. 4, p. 110–132. [6]
- Behrendt, J.C., 1986, Structural interpretation of multichannel seismic reflection profiles crossing the southeastern United States and the adjacent

- continental margin—décollements, faults, Triassic (?) basins and Moho reflections, *in* Barazangi, M., and Brown, L., eds., *Reflection seismology: the continental crust*: American Geophysical Union, Geodynamics Series, v. 14, p. 201–213. [2] [7] [8]
- Behrendt, J.C., Green, A.G., Lee, M.W., Hutchinson, D.R., Cannon, W.F., Milkereit, B., Agena, W.F., and Spencer, C., 1989, Crustal extension in the Midcontinent Rift System—results from GLIMPCE deep seismic reflection profiles over Lakes Superior and Michigan, *in* Mereu, R.F., Mueller, S.t., and Fountain, D.M., eds., *Properties and processes of earth's lower crust*: American Geophysical Union, Geophysical Monograph 51, p. 81–89. [8]
- Behrendt, J.C., Hutchinson, D.R., Lee, M., Thornber, C.R., Trehu, A., Cannon, W., and Green, A., 1990, GLIMPCE seismic reflection evidence of deep-crustal and upper-mantle intrusions and magmatic underplating associated with the Midcontinent Rift System of North America, *in* Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins*: Tectonophysics, v. 173, p. 595–615. [8]
- Behrens, K., Hansen, J., Flüh, E.R., Goldflam, S., and Hirschleber, H., 1986, Seismic investigations in the Skagerrak and Kattegat, *in* Galson, D.A., and Mueller, S.t., eds., *The European Geotraverse, Part 2: Tectonophysics*, v. 128, p. 209–228. [2] [8]
- Behrens, K., Goldflam, S., Heikkinen, P., Hirschleber, H., Lindquist, G., and Lund, C.E., 1989, Reflection seismic measurements across the Granulite belt of the POLAR profile in the northern Baltic Shield, northern Finland, *in* Freeman, R., Knorrung, M. von, Korhonen, H., Lund, C., and Muller, S.t., eds., *The European Geotraverse, Part 5: The POLAR Profile: Tectonophysics*, v. 162, p. 101–111. [8]
- Belousov, V.G., Vol'vovski, B.S., Vol'vovski, I.S., and Ryaboi, V.Z., 1962, Experimental recording of deep reflected waves: Bull. (Izvestiya) Acad. Sci., U.S.S.R., Geophys. Ser., English translation, no. 8 (1962), p. 662–669. [2] [6]
- Belyaevsky, N.A., Borisov, A.A., Vol'vovsky, I.S., and Schukin, Yu.K., 1968, Transcontinental crustal sections of the U.S.S.R. and adjacent areas: Canadian Journal of Earth Science, v. 5, p. 1067–1078. [6]
- Belyaevsky, N.A., Borisov, A.A., Fedinsky, V.V., Fotiadi, E.E., Subbotin, S.I., and Volkovskiy, I.S., 1973, Structure of the earth's crust on the territory of the U.S.S.R., *in* Mueller, S., ed., *The structure of the earth's crust, based on seismic data*: Tectonophysics, v. 20, p. 35–45. [2] [6] [10]
- Bentley, C.R., 1973, Crustal structure of Antarctica, *in* Mueller, S., ed., *The structure of the earth's crust, based on seismic data*: Tectonophysics, v. 20, p. 229–240. [2] [5] [6]
- Bentley, C.R., and Worzel, J.L., 1956, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part X: Continental slope and continental rise south of the Grand Banks: Bulletin of the Geological Society of America, v. 67, p. 1–18, doi:10.1130/0016-7606(1956)67[1:GIITEA]2.0.CO;2. [2] [5]
- Benz, H.M., Unger, J.D., Leith, W.S., Mooney, W.D., Solodilov, L., Egorkin, A.V., and Ryaboy, V.Z., 1992, Deep seismic sounding in northern Eurasia: Eos (Transactions, American Geophysical Union), v. 73, no. 28, p. 297, 300. [8]
- Beránek, B., Dudek, A., Feifar, M., Hrdlicka, A., Suk, M., Zoukova, M., and Weiss, J., 1972a, Czechoslovakia, *in* Sollogub, V.B., Prosen, D., and Militzer, H., *Crustal structure of central and southeastern Europe based on the results of explosion seismology* (publ. in Russian, 1971). English translation edited by Szénás, Gy., 1972, *Geophysical Transactions*, spec. ed., Müszaki Könyvkiadó, Budapest, chapter 24, p. 87–98. [2] [6]
- Beránek, B., Weiss, J., Hrdlicka, A., Dudek, A., Zoukova, M., Suk, M., Feifar, M., Militzer, H., Knothe, H., Mituch, E., Posgay, K., Uchman, J., Sollogub, V.B., Chekunov, A.V., Prosen, D., Milovanovic, B., and Roksandic, M., 1972b, The results of the measurements along the international profiles, *in* Sollogub, V.B., Prosen, D., and Militzer, H., eds., *Crustal structure of central and southeastern Europe based on the results of explosion seismology* (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972, *Geophysical Transactions*, spec. ed., Müszaki Könyvkiadó, Budapest, chapter 3, p. 133–139. [2] [6]
- Beránek, B., Mayerová, M., Zounková, M., Gutern, A., Materzok, R., and Pajchel, J., 1973, Results of deep seismic sounding along International profile in Czechoslovakia and Poland: *Studia in Geophysica et Geodaetica*, Academy of Science, CSSR, Prague, v. 17, p. 205–217. [7]
- Berckhemer, H., 1968, Topographie des "Ivreia-Körpers" abgeleitet aus seismischen und gravimetrischen Daten: Schweizerische Mineralogische und Petrographische Mitteilungen, 48, p. 235–246. [6]
- Berckhemer, H., 1970, MARS 66—a magnetic tape recording equipment for deep seismic sounding: Zeitschrift für Geophysik, v. 36, p. 501–518. [6]
- Berckhemer, H., Baier, B., Bartelsen, H., Behle, A., Burckhardt, H., Gebrande, H., Makris, J., Menzel, H., Miller, H., and Veis, R., 1975, Deep seismic soundings in the Afar region and on the highland of Ethiopia, *in* Pilger, A., and Rösler, A., eds., *Afar Depression of Ethiopia*: Stuttgart, Schweizerbart, p. 89–107. [2] [7]
- Berg, E., 1973, Crustal structure in Alaska, *in* Mueller, S., ed., *The structure of the earth's crust, based on seismic data*: Tectonophysics, v. 20, p. 165–182. [5] [6]
- Berg, J.W., Cook, K.L., and Narans, H.D., 1960, Seismic investigation of crustal structure in the eastern part of the Basin and Range Province: Bulletin of the Seismological Society of America, v. 50, p. 511–535. [2] [5]
- Berg, Jr., J.W., Trembley, L., Emelia, D.W., Hutt, J.R., King, J.M., Long, L.T., McKnight, W.R., Sarmah, S.K., Souders, R., Thiruvathukal, J.V., and Vossler, D.A., 1966, Crustal refraction profile, Oregon coast range: Bulletin of the Seismological Society of America, v. 56, p. 1357–1362. [6]
- Bergerat, F., Mugnier, J.-L., Guellec, S., Truffert, C., Cazes, M., Damotte, B., and Roure, F., 1990, Extensional tectonics and subsidence of the Bresse basin: an interpretation from ECORS data: Mémoires Société Géologique France, N.S., v. 156, p. 145–156. [8]
- Bernabini, M., and Manetti, P., 2003, CROP project: goals and organization, *in* Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., *CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia*, Roma, 62, p. 9–14. [8] [9]
- Bernabini, M., Nicolich, R., and Polino, R., 2003, Seismic lines CROP-ECORS across the Western Alps, *in* Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., *CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia*, Roma, 62, p. 89–96. [8]
- Berrocal, J., Marangoni, Y., de Sa, N.C., Fuck, R., Soares, J.E.P., Dantas, E., Perosi, F., and Fernandes, C., 2004, Deep seismic refraction and gravity crustal model and tectonic deformation in Tocantins Province, Central Brazil: Tectonophysics, v. 388, p. 187–199, doi:10.1016/j.tecto.2004.04.033. [2] [9]
- Berry, M.J., 1973, Structure of the crust and upper mantle in Canada, *in* Mueller, S., ed., *The structure of the earth's crust, based on seismic data*: Tectonophysics, v. 20, p. 183–201. [2] [6]
- Berry, M.J., and Forsyth, D.A., 1975, Structure of the Canadian Cordillera from seismic refraction and other data: Canadian Journal of Earth Science, v. 12, p. 182–208. [2] [6]
- Berry, M.J., and Fuchs, K., 1973, Crustal structure of the Superior and Grenville provinces of the northeastern Canadian Shield: Bulletin of the Seismological Society of America, v. 63, p. 1393–1432. [2] [6]
- Berry, M.J., and Mair, J.A., 1977, The nature of the earth's crust in Canada, *in* Heacock, J.G. ed., *The earth's crust*: American Geophysical Union Geophysical Monograph 20, p. 319–348. [2] [7]
- Berry, M.J., and West, G.F., 1966, A time–term interpretation of the first-arrival data of the 1963 Lake Superior experiment, *in* Steinhart, J.S., and Smith, T.J., eds., *The earth beneath the continents*: Washington, D.C., American Geophysical Union, Geophysical Monograph 10, p. 166–180. [6]
- Berry, M.J., Jacoby, W.R., Niblett, E.R., and Stacey, R.A., 1971, A review of geophysical studies in the Canadian Cordillera: Canadian Journal of Earth Science, v. 8, p. 788–801. [6]
- Berthelsen, A., 1983, The early (800–300 Ma) crustal evolution of the off-shelf regions of Europe, *in* Galson, D.A., and Mueller, S., eds., *Proceedings of the First Workshop on the EGT project—the northern segment*: Strasbourg, European Science Foundation, p. 125–142. [8]
- Berzin, R., Oncken, O., Knapp, J.H., Perez-Estaun, A., Hismatulin, T., Yunusov, N., and Lipilin, A., 1996, Orogenic evolution of the Ural Mountains: Results from an integrated seismic experiment: Science, v. 274, p. 220–221, doi:10.1126/science.274.5285.220. [9]
- Berzin, R.G., Yurov, Yu.G., and Pavlenkova, N.I., 2002, CDP and DSS data along the Uchta-Kem profile (the Baltic Shield): Tectonophysics, v. 355, p. 187–200, doi:10.1016/S0040-1951(02)00141-5. [2] [9]
- Bessonova, E.N., Fishmen, V.M., Ryaboi, V.Z., and Sitnikova, G.A., 1974, The tau method for inversion and traveltimes. I. Deep seismic sounding data: Geophysical Journal of the Royal Astronomical Society, v. 36, p. 377–398. [2] [7] [10]
- Betlej, K., Gadomska, B., Gorczynski, L., Gutern, A., Milolajzak, A., and Uchman, J., 1967, Deep seismic sounding on the profile Starachowice–

- Radzyn Podlaski: Publications of the Institute of Geophysics, Polish Academy of Sciences, v. 14, p. 41–46. [6]
- Bezdan, S., and Hajnal, Z., 1998, Expanding spread profiles across the Trans-Hudson orogen, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: Tectonophysics, v. 288, p. 83–91. [9]
- Bibee, L.D., and Shor, G.G., 1976, Compressional wave anisotropy in the crust and upper mantle: Geophysical Research Letters, v. 3, p. 639–642, doi:10.1029/GL003i011p00639. [2] [7]
- Biella, G.C., Gelati, R., Maistrello, M., Mancuso, M., Massiotta, P., and Scarascia, S., 1987, The structure of the upper crust in the Alps-Apennines region deduced from seismic refraction data, in Freeman, R., and Mueller, St., eds., The European Geotraverse, Part 3: Tectonophysics, v. 142, p. 71–85. [2] [8]
- Birch, F., Schairer, J.F., and Spicer, H.C., eds., 1942, Handbook of physical constants: Geological Society of America Special Paper 36, 323 p. [4] [5]
- Birkenmajer, K., Guterch A., Grad M., Janik T., and Perchuc, E., 1990, Lithospheric transect Antarctic Peninsula–South Shetland Islands, West Antarctica: Polish Polar Research, v. 11, p. 241–258. [8]
- BIRPS and ECORS, 1986, Deep seismic reflection profiling between England, France and Ireland: Journal of the Geological Society London, 143, p. 45–52, doi:10.1144/gsjgs.143.1.0045. [8]
- Birt, C.S., Maguire, P.K.H., Khan, M.A., Thybo, H., Keller, G.R., and Patel, J., 1997, The influence of pre-existing structures on the evolution of the southern Kenya rift valley—evidence from seismic and gravity studies, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics, v. 278, p. 211–242. [9]
- Bleibinhaus, F., and Gebrande, H., 2006, Crustal structure of the Eastern Alps along the TRANSALP profile from wide-angle seismic tomography, in Gebrande, H., Castellarin, A., Lueschen, E., Millahn, K., Neubauer, F., and Nicolich, R., eds., TRANSALP—a transect through a young collisional orogen: Tectonophysics, v. 414, p. 51–69. [9]
- Bleibinhaus, F., Beilecke, T., Bram, K., and Gebrande, H., 1999, A seismic velocity model for the SW Baltic Sea derived from BASIN'96 refraction seismic data: Tectonophysics, v. 314, p. 269–283, doi:10.1016/S0040-1951(99)00248-6. [2] [9]
- Bleibinhaus, F., Brueckl, E., and ALP 2002 Working Group, 2006, Wide-angle observations of ALP 2002 shots on the TRANSALP profile: linking the two DSS projects, in Gebrande, H., Castellarin, A., Lueschen, E., Millahn, K., Neubauer, F., and Nicolich, R., eds., TRANSALP—a transect through a young collisional orogen: Tectonophysics, v. 414, p. 71–78. [10]
- Bleibinhaus, F., Hole, J.A., Ryberg, T., and Fuis, G.S., 2007, Structure of the California Coast Ranges and San Andreas Fault at SAFOD from seismic waveform inversion and reflection imaging: Journal of Geophysical Research, v. 112, B06315, doi:10.1029/2006JB004611. [10]
- Blümling, P., and Prodehl, C., 1983, Crustal structure beneath the eastern part of the Coast Ranges (Diablo Range) of central California from explosion-seismic and near-earthquake data, in Ansorge, J., and Mereu, R.F., eds., Probing the earth's lithosphere by controlled source seismology: Physics of the Earth and Planetary Interiors, v. 31, p. 313–326. [6] [7]
- Blundell, D.J., and Docherty, J.I.C., 1987, A programme of deep seismic reflection profiling across Europe. Final report, EC contract no. EN3G 0016 UK (H), unpublished. [2] [8]
- Blundell, D.J., and Parks, R., 1969, A study of the crustal structure beneath the Irish Sea: Geophysical Journal of the Royal Astronomical Society, v. 17, p. 45–62. [6]
- Blundell, D., Freeman, R., and Mueller, S., eds., 1992, A continent revealed—the European Geotraverse: Cambridge University Press, 275 p. [2] [8]
- Boatwright, J., Blair, L., Catchings, R.D., Goldman, M.R., Perosi, F., and Steedman, C.E., 2004, Using twelve years of USGS refraction lines to calibrate the Brocher and others (1997) 3D velocity model of the Bay Area: U.S. Geological Survey Open-File Report 2004-1282, 34 p. [9]
- Bocin, A., Stephenson, R., Tryggvason, A., Panea, I., Mocanu, V., Hauser, F., and Matenco, L., 2005, 2.5D seismic velocity modeling in the south-eastern Romanian Carpathians Orogen and its foreland: Tectonophysics, v. 410, p. 273–291, doi:10.1016/j.tecto.2005.05.045. [10]
- Bock, G., Achauer, U., Alinaghi, A., Ansorge, J., Bruneton, M., Friederich, W., Grad, M., Guterch, A., Hjelt, S.-E., Hyvönen, T., Ikonen, J.-P., Kissling, E., Komminaho, K., Korja, A., Heikkilä, P., Kozlovskaya, E., Neusky, M.V., Pavlenkova, N., Pedersen, H., Plomerova, J., Raita, T., Riznichenko, O., Roberts, R.G., Sandoval, S., Sanina, I.A., Sharov, N., Tiikkainen, J., Volosov, S.G., Wielandt, E., Wylegalla, K., Yliniemi, J., and Yurov, Y., 2001, Seismic Probing of Fennoscandian Lithosphere: Eos (Transactions, American Geophysical Union), v. 82, no. 50, p. 621, 628–629, doi:10.1029/01EO00356. [9]
- Bogdanova, S.V., Gorbatschev, R., and Stephenson, R.A., 2001, EUROBRIDGE: Paleoproterozoic accretion of Fennoscandia and Sarmatia: Tectonophysics, v. 339, p. vii–x, doi:10.1016/S0040-1951(01)00030-0. [9]
- Bogdanova, S., Gorbatschev, R., Grad, M., Janik, T., Guterch, A., Kozlovskaya, E., Motuzka, G., Skridlaite, G., Starostenko, V., Taran, L., and EUROBRIDGE and POLONAISE Working Groups, 2006, EUROBRIDGE: new insight into the geodynamic evolution of the East European Craton, in Gee, D.G., and Stephenson, R.A., eds., European lithosphere dynamics: Geological Society of London Memoir 32, p. 599–625. [9]
- Bohm, M., Lüth, S., Echtler, H., Asch, G., Bataille, K., Bruhn, C., Rietbrock, A., and Wigger, P., 2002, The Southern Andes between 36° and 40°S latitude: seismicity and average seismic velocities: Tectonophysics, v. 356, p. 275–289, doi:10.1016/S0040-1951(02)00399-2. [9] [10]
- Bois, C., and ECORS Scientific Parties, 1991, Post-orogenic evolution of the European crust studied from ECORS deep seismic profiles, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., Continental lithosphere: deep seismic reflections: American Geophysical Union, Geodynamics Series, v. 22, p. 69–76. [2] [8] [9]
- Bois, C., Cazes, M., Damotte, B., Galdeano, A., Hirn, A., Mascle, A., Matte, P., Raoul, J.F., and Torreilles, G., 1986, Deep seismic profiling of the crust in northern France: the ECORS project, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 21–29. [2] [8]
- Bois, C., Damotte, B., Mascle, A., Cazes, M., Hirn, A., and Biju-Duval, B., 1987, Operations and main results of the ECORS project in France: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 279–286. [8]
- Bois, C., Pinet, B., and Roure, F., 1989, Dating lower crustal features in France and adjacent areas from deep seismic profiles, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., Properties and processes of earth's lower crust: American Geophysical Union, Geophysical Monograph 51, p. 17–31. [8]
- Bolt, B.A., 1962, A seismic experiment using quarry blasts near Sydney: Australian Journal of Physics, v. 15, p. 293–300. [2] [5]
- Bolt, B.A., Doyle, H.A., and Sutton, D.J., 1958, Seismic observations from the 1956 atomic explosions in Australia: Geophysical Journal of the Royal Astronomical Society, v. 1, p. 135–145. [2] [5]
- Bonjer, K.-P., 1997, Seismicity pattern and style of seismic faulting at the eastern border of the southern Rhinegraben, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., Stress and stress release in the lithosphere—structure and dynamic processes in the rifts of western Europe: Tectonophysics, v. 275, p. 41–69. [9]
- Bonjer, K.-P., Kaminski, W., and Kind, R., 1974, Seismic observations in Germany of a 10 t explosion off Scotland: Journal of Geophysics, v. 40, p. 259–264. [7]
- Booth-Rea, G., Ranero, C.R., Martinez-Martinez, J.M., and Grevemeyer, I., 2007, Crustal types and Tertiary tectonic evolution of the Alboran Sea, western Mediterranean. Geochemistry Geophysics Geosystems, v. 8, no. 10, doi:10.1029/2007GC001639. [9]
- Borchardt, R.D., 2009, Viscoelastic waves in layered media: Cambridge, U.K., Cambridge University Press, 305 p. [2] [10]
- Borus, H., Flüh, E., Grevemeyer, I., Kopp, C., and Lelgemann, H., 2001, Crustal structure, in Spiess, V., Flüh, E., and Schott, F., eds., Trans Atlantic 2000, Meteor-Berichte M47, no. 01-2, part 2. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, p. 2-24–2-35. [2] [9]
- Bosshard, E., and MacFarlane, D.-J., 1970, Crustal structure of the western Canary islands from seismic refraction and gravity data: Journal of Geophysical Research, v. 75, no. 26, p. 4901–4918, doi: 10.1029/JB075i026p04901. [9]
- Bott, M.H.P., and Gunnarson, K., 1980, Crustal structure of the Iceland-Faeroe Ridge: Journal of Geophysics, v. 47, p. 221–227. [2] [6] [7]
- Bott, M.H.P., Holder, A.P., Long, R.E., and Lucas, A.L., 1970, Crustal structure beneath the granites of South-West England, in Newall, G., and Rast, N., eds., Mechanism of igneous intrusion: Geology Journal Special Issue, 2, p. 93–102. [6]
- Bott, M.H.P., Browitt, C.W.A., and Stacey, A.P., 1971, The deep structure of the Iceland-Faeroe Ridge: Marine Geophysical Research, v. 1, p. 328–351. [2] [6] [7]

- Bott, M.H.P., Sunderland, J., Smith, P.J., Casten, U., and Saxov, S., 1974, Evidence for continental crust beneath the Faeroe islands: *Nature*, v. 248, p. 202–204, doi:10.1038/248202a0. [7]
- Bott, M.H.P., Nielsen, P.H., and Sunderland, J., 1976, Converted P-waves originating at the continental margin between the Iceland-Faeroe Ridge and the Faeroe block: *Geophysical Journal of the Royal Astronomical Society*, v. 44, p. 229–238. [7]
- Bott, M.H.P., Armour, A.R., Himsworth, E.M., Murphy, T., and Wylie, G., 1979, An explosion seismology investigation of the continental margin west of the Hebrides, Scotland, at 58°N, in Keen, C.E. ed., Crustal properties along passive margins: *Tectonophysics*, v. 59, p. 217–231, doi:10.1016/0040-1951(79)90046-5. [2] [7]
- Bott, M.H.P., Green, A.S.P., Long, R.E., and Stevenson, D.L., 1983, Preliminary deep crustal structure beneath northern England from CSSP: *Geophysical Journal of the Royal Astronomical Society*, v. 73, p. 285. [2] [8]
- Bott, M.H.P., Long, R.E., Green, A.S.P., Lewis, A.H.J., Sinha, M.C., and Stevenson, D.L., 1985, Crustal structure south of the Iapetus suture beneath northern England: *Nature*, v. 314, p. 724–727, doi:10.1038/314724a0. [8]
- Bottinga, Y., Hirn, A., and Steinmetz, L., 1973, Implications de l'existed'un canal à moindre vitesse sous Moho : *Bulletin de la Société Géologique de France*, (7), 15, p. 500–505. [7]
- Braile, L.W., and Smith, R.B., 1975, Guide to the interpretation of crustal refraction profiles: *Geophysical Journal of the Royal Astronomical Society*, v. 40, p. 145–176. [2] [7] [10]
- Braile, L.W., Smith, R.B., Keller, G.R., Welch, R.M., and Meyer, R.P., 1974, Crustal structure across the Wasatch Front from detailed seismic refraction studies: *Journal of Geophysical Research*, v. 79, p. 2669–2676, doi:10.1029/JB079i017p02669. [2] [7]
- Braile, L.W., Smith, R.B., Ansorge, J., Baker, M.R., Sparlin, M.A., Prodehl, C., Schilly, M.M., Healy, J.H., Mueller, St., and Olsen, K.H., 1982, The Yellowstone–Snake River Plain seismic profiling experiment: Crustal structure of the eastern Snake River Plain: *Journal of Geophysical Research*, v. 87, p. 2597–2609, doi:10.1029/JB087iB04p02597. [7]
- Braile, L.W., Hinze, W.J., von Frese, R.R.B., and Keller, G.R., 1989, Seismic properties of the crust and uppermost mantle of the conterminous United States and adjacent Canada, in Pakiser, L.C., and Mooney, W.D., eds., *Geophysical framework of the continental United States: Geological Society of America Memoir* 172, p. 655–680. [2] [8] [10]
- Braile, L.W., Wang, B., Daudt, C.R., Keller, G.R., and Patel, J.P., 1994, Modeling the 2-D seismic velocity structure across the Kenya rift, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., *Crustal and upper mantle structure of the Kenya rift: Tectonophysics*, v. 236, p. 251–269. [9]
- Braile, L.W., Keller, G.R., Mueller, S., and Prodehl, C., 1995, Seismic techniques, in Olsen, K.H. ed., *Continental rifts: Evolution, structure, tectonics*: Amsterdam, Elsevier, p. 61–92. [2] [10]
- Braile, L.W., Keller, G.R., Wendlandt, R.F., Morgan, P., and Khan, M.A., 1995, The East African rift system, in Olsen, K.H., ed., *Continental rifts: evolution, structure, tectonics*: Elsevier, p. 213–231. [2] [9]
- Branson, J.C., Moss, F.J., and Taylor, F.J., 1976, Deep crustal reflection seismic test survey, Mildura, Victoria, and Broken Hill, NSW, 1968, Bureau of Mineral Resources, Australia, report 183. [6] [7]
- Breivik, A.J., Mjelde, R., Grogan, P., Shimamura, H., Murai, Y., Nishimura, Y., and Kuwano, A., 2002, A possible Caledonide arm through the Barents Sea imaged by OBS data: *Tectonophysics*, v. 355, p. 67–97, doi:10.1016/S0040-1951(02)00135-X. [2] [9]
- Brewer, J.A., and Oliver, J.E., 1980, Seismic reflection studies of deep crustal structure: *Annual Reviews of Earth and Planetary Science*, v. 8, p. 205–230, doi:10.1146/annurev.ea.08.050180.001225. [2] [6] [7]
- Brewer, J.A., Smithson, S.B., Oliver, J.E., Kaufman, S., and Brown, L.D., 1980, The Laramide orogeny: evidence from COCORP seismic reflection profiles in the Wind River mountains, Wyoming: *Tectonophysics*, v. 62, p. 165–189, doi:10.1016/0040-1951(80)90191-2. [7]
- Brewer, J.A., Allmendinger, L.D., Brown, L.D., Oliver, J.E., and Kaufman, S., 1982, COCORP profiling across the northern Rocky Mountain front, Part I: Laramide structure of the front in Wyoming: *Geological Society of America Bulletin*, v. 93, p. 1242–1252, doi:10.1130/0016-7606(1982)93<1242:CPATRM>2.0.CO;2. [7]
- British National Committee for Geodesy and Geophysics, 1948, Report of seismic work on the North German explosions, 1946–1947, Oslo. [4]
- Brocher, T.M., 1994, Data report for piggyback wide-angle recordings of the 1993 San Francisco Bay Area, California, seismic refraction experiment: U.S. Geological Survey Open-File Report 94-448, 19 p. [9]
- Brocher, T.M., and Moses, M.J., 1990, Wide-angle seismic recordings obtained during the TACT multichannel reflection profiling in the northern Gulf of Alaska: Menlo Park, California, U.S. Geological Survey Open-File Report 90-663, 40 p. [8]
- Brocher, T.M., and Moses, M.J., 1993, Onshore-offshore wide-angle seismic recordings of the San Francisco Bay Area seismic imaging experiment (BASIX): the five-day recorder data: U.S. Geological Survey Open-File Report 93-276, 89 p. [9]
- Brocher, T.M., Hart, P.E., and Carle, S.F., 1990, Feasibility study of the seismic reflection method in Amargosa Desert, Nye County, Nevada: U.S. Geological Survey Open-File Report 89-133, 150 p. [2] [8] [9]
- Brocher, T.M., Moses, M.J., Fisher, M.A., Stephens, C.D., and Geist, E.L., 1991a, Images of the plate boundary beneath southern Alaska, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: American Geophysical Union, *Geodynamics Series*, 22, p. 241–246. [2] [8]
- Brocher, T.M., Klemperer, S.L., ten Brink, U.S., and Holbrook, W.S., 1991b, Wide-angle seismic profiling of San Francisco Bay Area faults: preliminary results from BASIX: *Eos (Transactions, American Geophysical Union)*, v. 72, p. 446. [2] [9]
- Brocher, T.M., Moses, M.J., and Lewis, S.D., 1992, Wide-angle seismic recordings obtained during seismic reflection profiling by the S.P. Lee offshore the Loma Prieta epicenter: U.S. Geological Survey Open-File Report 92-245, 63 p. [9]
- Brocher, T.M., Moses, M.J., and Trebu, A.M., 1993a, Onshore-offshore wide-angle seismic recordings from central Oregon: the five-day recorder data: U.S. Geological Survey Open-File Report 93-318, 24 p. [8] [9]
- Brocher, T.M., Carr, M.D., Fox, K.F., and Hart, P.E., 1993b, Seismic reflection profiling across Tertiary extensional structures in the eastern Amargosa Desert, Basin and Range, USA: *Geological Society of America Bulletin*, v. 105, p. 30–46, doi:10.1130/0016-7606(1993)105<0030:SRPATE>2.3.CO;2. [8] [9]
- Brocher, T.M., McCarthy, J., Hart, P., Holbrook, W.S., Furlong, K.P., McEvilly, T.V., Hole, J.A., and Klemperer, S.L., 1994, Seismic evidence for a lower-crustal detachment beneath San Francisco Bay, California: *Science*, v. 265, p. 1436–1439, doi:10.1126/science.265.5177.1436. [9]
- Brocher, T.M., Allen, R.M., Stone, D.B., Wolf, L.W., and Galloway, B.K., 1995a, Data report for onshore-offshore wide-angle seismic recordings in the Bering–Chukchi Sea, western Alaska and eastern Siberia: U.S. Geological Survey Open-File Report 95-650, 57 p. [2] [9]
- Brocher, T.M., Davis, M.J., Clarke, S.H., Jr., and Geist, E.L., 1995b, Onshore-offshore wide-angle seismic recordings in October 1994 near Cape Blanco, Oregon: U.S. Geological Survey Open-File Report 95-819, 69 p. [9]
- Brocher, T.M., Clayton, R.W., Klitgord, K.D., Bohannon, R.G., Sliter, R., McRaney, J.K., ardner, J.V., and Keene, J.B., 1995c, Multi-channel seismic-reflection profiling on the R/V *Maurice Ewing* during the Los Angeles region seismic experiment (LARSE), California: U.S. Geological Survey Open-File Report 95-228, 71 p. [9]
- Brocher, T.M., Hart, P.E., Hunter, W.C., and Langenheim, V.E., 1996, Hybrid-source seismic reflection profiling across Yucca Mountain, Nevada—regional lines 2 and 3: U.S. Geological Survey Open-File Report 96-28, 110 p. [9]
- Brocher, T.M., Parsons, T., Creager, K.C., Crosson, R.S., Symons, N.P., Spence, G.D., Zelt, B.C., Hammer, P.T.C., Hyndman, R.D., Mosher, D.C., Trebu, A.M., Miller, K.C., ten Brink, U.S., Fisher, M.A., Pratt, T.L., Alvarez, M.G., Beaudoin, B.C., Louden, K.E., and Weaver, C.S., 1999, Wide-angle seismic recordings from the 1998 seismic hazards investigations of Puget Sound (SHIPS), western Washington and British Columbia: U.S. Geological Survey Open-File Report 99-314, 123 p. [9]
- Brocher, T.M., Pratt, T.L., Miller, K.C., Trebu, A.M., Nelson, C.M., Weaver, C.S., Creager, K.C., Crosson, R.S., ten Brink, U.S., Alvarez, M.G., Harder, S.H., and Isudeh, I., 2000, Report for explosion and earthquake data acquired in the 1999 seismic hazards investigation of Puget Sound (SHIPS), Washington: U.S. Geological Survey Open-File Report 00-318, 81 p. [9]
- Brocher, T.M., Parsons, T., Blakely, M.I., Christensen, N.I., Fisher, M.A., Wells, R.E., and the SHIPS Working Group, 2001, Upper crustal structure in Puget Lowland, Washington: results from 1998 Seismic Hazards Investigation of Puget Sound: *Journal of Geophysical Research*, v. 106, p. 13,541–13,564, doi:10.1029/2001JB000154. [2] [9]
- Brocher, T.M., Pratt, T.L., Spence, G.D., Riedel, M., and Hyndman, R.D., 2003, Wide-angle seismic recordings from the 2002 Georgia Basin geohazards

- initiative, northwestern Washington and British Columbia: Menlo Park, California, U.S. Geological Survey Open-File Report 03-160, 34 p. [10]
- Brocher, T.M., Fuis, G.S., Lutter, W.J., Christensen, N.I., and Ratchkovski, N.A., 2004a, Seismic velocity models for the Denali fault zone along the Richardson highway, Alaska: Bulletin of the Seismological Society of America, v. 94, p. S85–S106, doi: 10.1785/0120040615. [2] [8]
- Brocher, T.M., Moses, M.J., and Lewis, S.D., 2004b, Evidence for oceanic crust beneath the continental margin west of the San Andreas fault from onshore-offshore wide-angle seismic recordings, in Wells, R.E. ed., The Loma Prieta, California, Earthquake of October 17, 1989—Geologic Setting and Crustal Structure: U.S. Geological Survey Professional Paper, 1550-E, p. 107–125. [9]
- Brockamp, B., 1931a, Die Mächtigkeit des grönlandischen Inlandeises. Zeitschrift für Gletscherkunde, Bd. XXIII, Heft 4/5, p. 277–284. [3]
- Brockamp, B., 1931b, Seismische Beobachtungen von Steinbruchspregungen: Zeitschrift für Geophysik, v. 7, p. 295–317. [3] [4]
- Bröckel, K. von, ed., 1994, Meteor-Berichte M0, no. 94-5. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, 126 p. [6] [8]
- Brown, A.R., 1970, Deep crustal reflection studies, Amadeus and Ngallia Basins, Northern Territory, 1969, Bureau of Mineral Resources, Australia, report 1962/61. [6]
- Brown, L.D., 2006, A review of the seismic evidence for partial melting of the Tibetan crust from Project INDEPTH: Eos (Transactions, American Geophysical Union), v. 87, no. 36, Western Pacific Geophysical Meeting Supplement, Abstract S44A-02. [9]
- Brown, L.D., Krumhanst, P.K., Chapin, C.E., Sanford, A.R., Cook, F.A., Kaufman, S., Oliver, J.E., and Schilt, F.S., 1979, COCORP seismic reflection studies of the Rio Grande rift, in Riecker, R.E., ed., Rio Grande rift: tectonics and magmatism: Washington, D.C., American Geophysical Union, p. 169–184. [2] [7]
- Brown, L.D., Chapin, C.E., Sanford, A.R., Kaufman, S., and Oliver, J.E., 1980, Deep structure of the Rio Grande rift from seismic reflection profiling: Journal of Geophysical Research, v. 85, p. 4773–4800. [7]
- Brown, L.D., Ando, C., Klemperer, S., Oliver, J., Kaufman, S., Czuchra, Walsh, T., and Isachsen, Y.W., 1983a, Adirondack-Appalachian crustal structure: the COCORP northeast traverse: Geological Society of America Bulletin, v. 94, p. 1173–1184. [2] [7] [8]
- Brown, L.D., Serpa, L., Setzer, T., Oliver, J., Kaufman, S., Lillie, R., Steiner, D., and Steeples, D.W., 1983b, Intracrustal complexity in the U.S. mid-continent: preliminary results from COCORP surveys in NE Kansas: Geology, v. 11, p. 25–30. [2] [8]
- Brown, L.D., Barazangi, M., Kaufman, S., and Oliver, J.E., 1986, The first decade of COCORP: 1974–1984, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 107–120. [2] [7] [8]
- Brown, L.D., Zhao, W., Nelson, K.D., Hauck, M., Alsdorf, D., Ross, A., Cogan, M., Clark, M., Liu, X., and Che, J., 1996, Bright spots, structure, and magmatism in southern Tibet from INDEPTH seismic reflection profiling: Science, v. 274, p. 1688–1690. [2] [9]
- Brown, R.D., Vedder, J.G., Wallace, R.E., Roth, E.F., Yerkes, R.F. Castle, R.O., Waananen, A.O., Page, R.E., and Eaton, J.P., 1967, The Parkfield-Cholame, California, earthquakes of June–August 1966—surface geologic effects, water-resources aspects, and preliminary seismic data: U.S. Geological Survey Professional Paper 579, 66 p. [9] [10]
- Brueckl, E., Bodoky, T., Hegedus, E., Hrubcova, P., Gosar, A., Grad, M., Guterch, A., Hajnal, Z., Keller, G.R., Sicak, A., Sumanovac, F., Thybo, H., Weber, F., and ALP 2002 Working Group, 2003, ALP 2002 seismic experiment: Czech Academy of Sciences, Prague, Czech Republic, Studia in Geophysica et Geodaetica, v. 47, p. 671–679, doi: 10.1023/A:1024780022139. [2] [10]
- Brueckl, E.P., Bleibinhaus, F., Gosar, A., Grad, M., Guterch, A., Hrubcova, P., Keller, G.R., Majdanski, M., Sumanovac, F., Tiira, T., Yliniemi, J., Hegedus, E., and Thybo, H., 2007, Crustal structure due to collisional and escape tectonics in the Eastern Alps region based on profiles Alp01 and Alp02 from the ALP 2002 seismic experiment: Journal of Geophysical Research, v. 112, B06308, doi: 10.1029/2006JB004687. [10]
- Brueckl, E., Behm, M., Decker, K., Grad, M., Guterch, A., Keller, G.R., and Thybo, H., 2010, Crustal structure and active tectonics in the Eastern Alps: Tectonics, v. 29, TC2011, doi: 10.1029/2009TC002491. [10]
- Brun, J.-P., Wenzel, F., and the ECORS-DEKOPR team, 1991, Crustal scale structure of the southern Rhine Graben from ECORS-DEKOPR seismic reflection data: Geology, v. 19, p. 758–762, doi: 10.1130/0091-7613(1991)019<0758:CSSOTS>2.3.CO;2. [2] [8]
- Brunet, M.-F., Volozh, Y.A., Antipov, M.E., and Lobkovsky, L.I., 1999, The geodynamic evolution of the Precaspian Basin (Kazakhstan) along a north-south section, in Stephenson, R.A., Wilson, M., and Starostenko, V.I., eds., EUROPBRE GeoRift, volume 2: Intraplate tectonics and basin dynamics of the East European Craton and its margins: Tectonophysics, v. 313, p. 85–106. [9]
- Bullard, E.C., and Gaskell, T.F., 1941, Submarine seismic investigations: Royal Society of London Proceedings, ser. A, no. 971, v. 177, p. 476–499. [2] [3] [5]
- Bullard, E.C., Gaskell, T.F., Harland, W.B., and Kerr-Grant, C., 1940, Seismic investigations on the Palaeozoic floor of east England: Royal Society of London Philosophical Transactions, ser. A, v. 239, p. 29–94. [2] [3] [5]
- Bullen, K.E., 1939, The crustal structure of the New Zealand Region as inferred from Studies of Seismic Waves, Proceedings of the 6th Pacific Scientific Congress, p. 103. [3]
- Bullen, K.E., 1947, Introduction to the theory of seismology: Cambridge, U.K., Cambridge University Press. [2] [10]
- Bullen, K.E., and Bolt, B.A., 1985, An introduction to the theory of seismology, 4th ed.: Cambridge, U.K., Cambridge University Press. [2] [10]
- Bunce, E.T., Crampin, S., Hersey, J.B., and Hill, M.N., 1964, Seismic refraction observations on the continental boundary west of Britain: Journal of Geophysical Research, v. 69, no. 18, p. 3853–3864, doi: 10.1029/JZ069i018p03853. [2] [6]
- Bunch, A.W.H., 1980, Crustal development of the Reykjanes Ridge from seismic refraction, in Jacoby, W., Björnsson, A., and Möller, D., eds., Iceland: Evolution, active tectonic, and structure: Journal of Geophysics, v. 47, p. 261–264. [2] [7]
- Buness, H., 1990, A compilation of data from the 1983 European Geotraverse experiment from the Ligurian Sea to the Southern Alps: Open-File Report, Institut für Geophysik, FU Berlin, Germany, 75 p. [8]
- Bungenstock, H., Closs, H., and Hinz, K., 1966, Seismische Untersuchungen im nördlichen Teil des Arabischen Meeres (Golf von Oman): Erdöl und Kohle, Erdgas, Petrochemie, v. 19 (4), p. 237–243. [6]
- Burek, B., and Dueker, K., 2005, Lithospheric stratigraphy beneath the Southern Rocky Mountains, USA, in Karlstrom, K.E., and Keller, G.R., eds., The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 317–328. [9]
- Burkhardt, H., and Vees, R., 1975, The Afar 1972 seismic source signals: Generation, control and comparison with profile records, in Pilger, A., and Rösler, A., eds., Afar Depression of Ethiopia, Schweizerbart, Stuttgart, 108–113. [7]
- Byerly, P., 1946, The seismic waves from the Prot Chicago explosion: Bulletin of the Seismological Society of America, v. 36, p. 331–348. [2] [4]
- Byerly, P., and Wilson, T.J., 1935a, The central California earthquakes of May 16, 1933, and June 7, 1934: Bulletin of the Seismological Society of America, v. 25, p. 223–246. [3]
- Byerly, P., and Wilson, T.J., 1935b, The Richmond quarry blast of Aug. 16, 1934: Bulletin of the Seismological Society of America, v. 25, p. 259–268. [2] [3]
- Byrne, G.F., Jacob, A.W.B., Mechie, J., and Dindi, E., 1997, Seismic structure of the upper mantle beneath the southern Kenya rift from wide-angle data, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics, v. 278, p. 243–260. [9]
- Caielli, G., Capizzi, P., Corsi, A., de Franco, R., Luzio, D., de Luca, L., and Vitale, M., 2003, Wide-angle sea-land connections as an integration of the CROP MARE 2 project, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, 62, p. 55–74. [9]
- Calvert, A.J., and Potts, C.G., 1985, Seismic evidence for hydrothermally altered mantle beneath old crust in the Tydeman fracture zone: Earth and Planetary Science Letters, v. 75, p. 439–449, doi: 10.1016/0012-821X(85)90187-6. [2] [8]
- Camelbeeck, T., and Iranga, M.D., 1996, Deep crustal earthquakes and active faults along the Rukwa trough, eastern Africa: Geophysical Journal International, v. 124, p. 612–630, doi: 10.1111/j.1365-246X.1996.tb07040.x. [9]
- Canales, J.P., Detrick, R.S., Bazin, S., Harding, A.J., and Orcutt, J.A., 1998, Off-axis crustal thickness across and along the East Pacific Rise within the MELT area: Science, v. 280, p. 1218–1221, doi: 10.1126/science.280.5367.1218. [2] [9]

- Canales, J.P., Detrick, R.S., Lin, J., Collins, J.A., and Toomey, D.R., 2000, Crustal and upper mantle seismic structure beneath the rift mountains and across a non-transform offset at the Mid-Atlantic Ridge (35°N): *Journal of Geophysical Research*, v. 105, p. 2699–2719, doi:10.1029/1999JB900379. [2] [9]
- Canales, J.P., Ito, G., Detrick, R.S., and Sinton, J., 2002, Crustal thickness along the western Galapagos Spreading Center and compensation of the Galapagos Swell: *Earth and Planetary Science Letters*, v. 203, p. 311–327, doi:10.1016/S0012-821X(02)00843-9. [9]
- Cann, J.R., 1970, New model of the structure of the oceanic crust: *Nature*, v. 226, p. 928–930, doi:10.1038/226928a0. [6]
- Carbonell, R., Perez-Estaun, A., Gallart, I., Díaz, J., Kashubin, S., Mechic, J., Stadtlander, R., Schulze, A., Knapp, J., and Morozov, A., 1996, Crustal root beneath the Urals: wide-angle seismic evidence: *Science*, v. 274, p. 222–224, doi:10.1126/science.274.5285.222. [9]
- Carbonell, R., Sallares, V., Pous, J., Danobeitia, J.J., Queralt, P., Ledo, J.J., and García Duenas, V., 1998a, A multidisciplinary geophysical study in the Betic chain (southern Iberian Peninsula), in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 137–152. [2] [9]
- Carbonell, R., Lecerf, D., Itzin, M., Gallart, J., and Brown, D., 1998b, Mapping the Moho beneath the southern Urals with wide-angle reflections: *Geophysical Research Letters*, v. 25, p. 4229–4232, doi:10.1029/1998GL900107. [9]
- Carbonell, R., Gallart, I., and Torne, J., 2000a, Deep seismic profiling of the continents and their margins: *Tectonophysics*, v. 329, 359 p. [2] [9]
- Carbonell, R., Gallart, I., Perez-Estaun, A., Díaz, J., Kashubin, S., Mechic, J., Wenzel F., and Knapp, J., 2000b, Seismic wide-angle constraints on the crust of the southern Urals: *Journal of Geophysical Research*, v. 105, p. 13,755–13,777, doi:10.1029/2000JB900048. [2] [9]
- Carbonell, R., Simancas, F., Juhlin, C., Pous, J., Perez-Estaun, A., Gonzales-Lodeiro, F., Muñoz, G., Heise, W., and Ayarza, P., 2004, Geophysical evidence of a mantle derived intrusion in SW Iberia: *Geophysical Research Letters*, v. 31(11), L11601, p. 1–4, doi:10.1029/2004GL019684. [2] [10]
- Carbotte, S.M., 2001, Mid-ocean ridge seismic structure, in Steele, J., Thorpe, S., and Turekian, K., eds., *Encyclopedia of Ocean Sciences*: Amsterdam, Academic Press, Elsevier, p. 1788–1798. [10]
- Carder, D.S., Tocher, D., Bufe, C., Stewart, S.W., Eisler, J., and Berg, E., 1967, Seismic wave arrivals from LONGSHOT, 0°–27°: *Bulletin of the Seismological Society of America*, v. 57, p. 573–590. [6]
- Carder, D.S., Qamar, A., and McEvilly, T.V., 1970, Trans-California seismic profile—Pahute Mesa to San Francisco Bay: *Bulletin of the Seismological Society of America*, v. 60, p. 1829–1846. [6]
- Carlson, R.L., 1998, Seismic velocities in the uppermost oceanic crust: age dependence and the fate of layer 2A: *Journal of Geophysical Research*, v. 103, p. 7069–7077, doi:10.1029/97JB03577. [7]
- Carmichael, D., Carpenter, G., Hubbard, A., McCamy, K., and McDonald, W., 1973, A recording ocean bottom seismograph: *Journal of Geophysical Research*, v. 78, p. 8748–8750, doi: 10.1029/JB078i035p08748. [7]
- Carton, H., Singh, S.C., Hirn, A., Bazin, S., de Voogd, B., Vigner, A., Ricolleau, A., Cetin, S., Oçakoglu, N., Karakoç, F., Sevilgen, V., 2007, Seismic imaging of the three-dimensional architecture of the Cinarcık Basin along the North Anatolian Fault: *Journal of Geophysical Research*, v. 112, B06101, p. 1–17. doi:10.1029/2006JB004548. [10]
- Cassinis, R., 1986, The geophysical exploration of the upper crust from the Ligurian coast to the northern margin of the Po valley: problems and results, in Galson, D.A., and Mueller, St., eds., *The European Geotraverse, Part 2: Tectonophysics*, v. 128, p. 381–394. [8]
- Cassinis, R., Finetti, I., Morelli, C., Steinmetz, L., and Vecchia, O., 1969, Deep seismic refraction research on Sicily: *Bollettino di Geofisica Teorica e Applicata*, v. 11, p. 140–160. [6] [7]
- Catchings, R.D., and Kohler, W.M., 1996, Reflected seismic waves and their effect on strong shaking during the 1989 Loma Prieta, California, earthquake: *Bulletin of the Seismological Society of America*, v. 86, p. 1401–1416. [9]
- Catchings, R.D., and Mooney, W.D., 1988a, Crustal structure of the Columbia Plateau; evidence for continental rifting: *Journal of Geophysical Research*, v. 93, p. 459–471, doi:10.1029/JB093iB01p00459. [2] [8] [9]
- Catchings, R.D., and Mooney, W.D., 1988b, Crustal structure of East-Central Oregon: relation between Newberry volcano and regional crustal structure: *Journal of Geophysical Research*, v. 93, p. 10,081–10,094, doi:10.1029/JB093iB09p10081. [8] [9]
- Catchings, R.D., and Mooney, W.D., 1991, Basin and Range crustal and upper mantle structure, northwest to central Nevada: *Journal of Geophysical Research*, v. 96, p. 6247–6267, doi:10.1029/91JB00194. [8]
- Catchings, R., and PASSCAL Working Group, 1988, The 1986 PASSCAL Basin and Range lithospheric seismic experiment: *Eos (Transactions, American Geophysical Union)*, v. 69, p. 593, 596–598, doi:10.1029/88EO00174. [2] [8]
- Catchings, R.D., M.J., Rymer, M.R., Goldman, J.A., Hole, R., Huggins, and C. Lippus, 2002, High-resolution seismic velocities and shallow structure of the San Andreas Fault Zone at Middle Mountain, Parkfield, California: *Bulletin of the Seismological Society of America*, v. 92, p. 2493–2503, doi:10.1785/0120010263. [10]
- Catchings, R.D., Goldman, M.R., Rymer, M.J., Gandhok, G., and Fuis, G.S., 2003, Data report for the main line of PSINE seismic survey across the San Andreas fault and SAFOD site near Parkfield, California: U.S. Geological Survey Open-File Report 03-84, 42 p. [10]
- Cernobori, L., Hirn, A., McBride, J.H., Nicolich, R., Petronio, L., Romanelli, M., and STREAMERS/PROFILES Working Group, 1996, Crustal image of the Ionian basin and its Calabrian margins: *Tectonophysics*, v. 264, p. 175–189, doi:10.1016/S0040-1916(96)00125-4. [9]
- Červený, V., 1979, Ray theoretical seismograms for laterally inhomogeneous structures: *Journal of Geophysics*, v. 46, p. 335–342. [2] [7] [8] [10]
- Červený, V., 1985, Gaussian-beam synthetic seismograms: *Journal of Geophysics*, v. 58, p. 44–72. [2] [9] [10]
- Červený, V., and Horn, F., 1980, The ray seismic method and dynamic ray tracing system for three-dimensional inhomogeneous media: *Bulletin of the Seismological Society of America*, v. 70, p. 47–77. [2] [7] [8] [10]
- Červený, V., and Pšenčík, I., 1984a, Data set 1: Synthetic record sections for a 2-D laterally inhomogeneous structure and explanatory notes, in Finlayson, D.M., and Ansorge, J., eds., *Workshop proceedings: interpretation of seismic wave propagation in laterally heterogeneous structures*: Bureau of Mineral Resources, Geology and Geophysics, report 258, Canberra, Australia, p. 3–14. [8]
- Červený, V., and Pšenčík, I., 1984b, Data set 1: Model Zurich, computation of synthetic record sections, in Finlayson, D.M., and Ansorge, J., eds., *Workshop proceedings: interpretation of seismic wave propagation in laterally heterogeneous structures*: Bureau of Mineral Resources, Geology and Geophysics, report 258, Canberra, Australia, p. 15–39. [8]
- Červený, V., and Pšenčík, I., 1984c, Numerical modelling of seismic wave fields in 2-D laterally varying layered structures by the ray method, in Engdahl, E.R., ed., *Documentation of earthquake algorithms*: Boulder, Colorado, World Data Center (A) for Solid Earth Geophysics, Rep. S-35, p. 36. [7] [9]
- Červený, V., Molotkov, I.A., and Pšenčík, I., 1977, Ray method in seismology: *Univerzita Karlova, Praha*, 214 p. [2] [7] [8] [10]
- Chabert, A., Ravaut, C., Readman, P.W., O'Reilly, B.M., and Shannon, P.M., 2006, Crustal structure of the Hatton Basin (North Atlantic) from a wide-angle seismic experiment: *European Geophysical Union, 2006 Annual Meeting, Geophysical Research Abstracts*, v. 8, 07929. [2] [10]
- Chandra, N.N., and Cumming, G.L., 1972, Seismic refraction studies in western Canada: *Canadian Journal of Earth Science*, v. 9, p. 1099–1109. [6]
- Chapman, C.H. 2004, Fundamentals of seismic wave propagation: Cambridge, U.K. Cambridge University Press, 608 p. [2] [10]
- Chapman, C.H., and Orcutt, J.A., 1980, Inversion of seismic refraction data: *Eos (Transactions, American Geophysical Union)* v. 61, p. 304. [8]
- Chapman, C.H., and Orcutt, J.A., 1985, Least-squares fitting of marine seismic refraction data: *Geophysical Journal of the Royal Astronomical Society*, v. 82, p. 339–374. [8]
- Charlier, Ch., 1947, Deuxième rapport sur l'explosion d'Heligoland: Service Séismologique et gravimétrique, Série S, no. 3, Observatoire Royal de Belgique a Uccle, 27 p. [4]
- Charvis, P., and Operto, S., 1999, Structure of the Cretaceous Kerguelen volcanic province (southern Indian Ocean) from wide-angle seismic data: *Journal of Geodynamics*, v. 28, p. 51–71, doi:10.1016/S0264-3707(98)00029-5. [9]
- Chen, B., and Gao, W., 1988, Crustal structure along the Taijiwen-Shayan DSS profile, in *Developments in the Research of Deep Structures of China's Continent*: Beijing, Geological Publishing House, p. 152–168. [8]
- Chen, X., Wu, Y., Du, P., Li, J., Wu, Y., Jiang, G., and Zhao, J., 1988, Crustal velocity structure at the two sides of Longmenshan Tectonic Belt, in *Developments in the Research of Deep Structures of China's Continent*: Beijing, Geological Publishing House, p. 97–113. [8]
- Cheung, H.P.Y., and Clowes, R.M., 1981, Crustal structure from P- and S-wave analyses: ocean bottom seismometer results in the northeast Pacific: *Geophysical Journal of the Royal Astronomical Society*, v. 65, p. 47–73. [2] [7]

- Chian, D., Louden, K.E., Minshull, T.A., and Whitmarsh, R.B., 1999, Deep structure of the ocean-continent transition in the southern Iberia Abyssal Plain from seismic refraction profiles: Ocean Drilling Programme (Legs 149 and 197) transect: *Journal of Geophysical Research*, v. 104, p. 7443–7462, doi:10.1029/1999JB900004. [9]
- Choudhury, M., Giese, P., and de Visintini, G., 1971, Crustal structure of the Alps—Some general features from explosion seismology: *Bollettino di Geofisica Teorica e Applicata*, v. 13, p. 211–240. [6]
- Christensen, N.I., and Mooney, W.D., 1995, Seismic velocity structure and composition of the continental crust: *Journal of Geophysical Research*, v. 100, p. 9761–9788, doi:10.1029/95JB00259. [2] [8] [9] [10]
- Christensen, N.I., and Salisbury, M.H., 1975, Structure and constitution of the lower oceanic crust: *Reviews of Geophysics*, v. 13, p. 57–86, doi:10.1029/RG013i001p00057. [2]
- Christensen, N.I., and Salisbury, M.H., 1982, Lateral heterogeneity in the seismic structure of the oceanic crust inferred from velocity studies in the Bay of Islands ophiolite, Newfoundland: *Geophysical Journal of the Royal Astronomical Society*, v. 68, p. 675–688. [7] [8]
- Christensen, N.I., and Smewing, J.D., 1981, Geology and seismic structure of the northern section of the Oman ophiolite: *Journal of Geophysical Research*, v. 86, p. 2545–2555, doi:10.1029/JB086iB04p02545. [7]
- Christeson, G.L., Shaw, P.R., and Garmany, J.D., 1997, Shear and compressional wave structure of the East Pacific Rise, 9°–10°N: *Journal of Geophysical Research*, v. 102, p. 7821–7835, doi:10.1029/96JB03901. [2] [9]
- Christeson, G.L., McIntosh, K.D., Shipley, T.H., Flueh, E.R., and Goedde, H., 1999, Structure of the Costa Rica convergent margin, offshore Nicoya Peninsula: *Journal of Geophysical Research*, v. 104, p. 25,443–25,468, doi:10.1029/1999JB900251. [2] [9]
- Christeson, G., Nakamura, Y., Buffler, R., Morgan, J., and Warner, M., 2001, Deep crustal structure of the Chicxulub impact crater: *Journal of Geophysical Research*, v. 106, p. 21,751–21,769, doi:10.1029/2001JB000337. [9]
- Chuaqui, L., and McEvilly, T.V., 1968, Detailed crustal structure within the central California large-scale seismic array, in *Annual Report, Seismographic Station, University of California, Berkeley*. [6]
- Chulick, G.S., 1997, Comprehensive seismic survey database for developing three-dimensional models of the Earth's crust: *Seismological Research Letters*, v. 68, p. 734–742. [10]
- Chulick, G.S., and Mooney, W.D., 2002, Seismic structure of the crust and uppermost mantle of North America and adjacent oceanic basins: a synthesis: *Bulletin of the Seismological Society of America*, v. 92, p. 2478–2492, doi:10.1785/0120010188. [2] [9] [10]
- Clark, S.A., Zelt, C.A., Magnani, M.B., and Levander, A., 2008, Characterizing the Caribbean–South American plate boundary at 64°W using wide-angle data: *Journal of Geophysical Research*, v. 113, B07401, doi:10.1029/2007JB005329. [10]
- Cleary, J., 1967, P times to Australian stations from nuclear explosions: *Bulletin of the Seismological Society of America*, v. 57, p. 773–781. [5]
- Cleary, J., 1973, Australian crustal structure, in Mueller, S., ed., *The structure of the earth's crust, based on seismic data: Tectonophysics*, v. 20, p. 241–248. [2] [5] [6]
- Clee, T.E., Barr, K.G., and Berry, M.J., 1974, Fine structure of the crust near Yellowknife: *Canadian Journal of Earth Science*, v. 11, p. 1534–1549. [2] [6]
- Clément, C., Hirn, A., Charvis, P., Sachpazi, M., and Marnelis, F., 2000, Seismic structure and the active Hellenic subduction in the Ionian islands: *Tectonophysics*, v. 329, p. 141–156, doi:10.1016/S0040-1951(00)00193-1. [2] [9]
- Clément, C., Sachpazi, M., Charvis, P., Graindorge, M., Laigle, M., A. Hirn, A., and G. Zafiroopoulos, G., 2004, Reflection-refraction seismics in the Gulf of Corinth: hints at deep structure and control of the deep marine basin: *Tectonophysics*, v. 391, p. 85–95. [9]
- Clement, W.P., Carbonell, R., and Smithson, S.B., 1994, Shear-wave splitting in the lower crust beneath the Archean crust of southwest Greenland: *Tectonophysics*, v. 232, p. 195–210, doi:10.1016/0040-1951(94)90084-1. [2] [8]
- Clitheroe, G., Gudmundsson, O., and Kennett, B.L.N., 2000, The crustal thickness of Australia: *Journal of Geophysical Research*, v. 105, p. 13,697–13,713, doi:10.1029/1999JB900317. [2] [9]
- Closs, H., 1969, Explosion seismic studies in western Europe, in Hart, P.J., ed., *The earth's crust and upper mantle: American Geophysical Union, Geophysical Monograph* 13, p. 178–188. [2] [5] [6]
- Closs, H., 1972, Cruise to the Norwegian Sea with F.S. Planet, August 4–21, 1969, *Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft*
- Borntraeger, Berlin-Stuttgart, Reihe C Geologie und Geophysik, C8, p. 1–9. [2] [6]
- Closs, H., 1974, Die geophysikalische Reichsaufnahme und ihre Vorgeschichte, in Birett, H., Helbig, K., Kertz, W., and Schmucker, U., eds., *Zur Geschichte der Geophysik: Berlin-Heidelberg-New York*, Springer, p. 115–130. [3]
- Closs, H., and Behnke, C., 1961, Fortschritte der Anwendung seismischer Methoden in der Erforschung der Erdkruste: *Geologische Rundschau*, v. 51, p. 315–330, doi:10.1007/BF01820003. [2] [5] [10]
- Closs, H., and Behnke, C., 1963, Progress in the use of seismic methods in the exploration of the Earth's crust: *International Geology Review*, v. 5, no. 8, p. 945–956, doi:10.1080/00206816309474688. [2] [5] [10]
- Closs, H., and Labrouste, Y., 1963, Séismologie: Recherches séismologiques dans les Alpes occidentales au moyen de grandes explosions en 1956, 1958 et 1960: Centre National de la Recherche Scientifique, Mémoir Collectif, Année Géophysique Internationale, Série XII, Fasc. 2, 241 p. [2] [5]
- Closs, H., Dietrich, G., Hempel, G., Schott, W., and Seibold, E., 1968, "Atlantische Kuppenfahrt" 1967 mit dem Forschungsschiff METEOR: *Meteor Forsch. Erg.* 5, p. 1–71 Reihe A. [2] [6] [9]
- Closs, H., Bungenstock, H., and Hinz, K., 1969a, Ergebnisse seismischer Untersuchungen in nördlichen Arabischen Meer, ein Beitrag zur Internationalen Indischen Ozean-Expedition: *Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin-Stuttgart, Reihe C Geologie und Geophysik*, C2, p. 1–28. [2] [6]
- Closs, H., Dietrich, G., Hempel, G., Schott, W., and Seibold, E., 1969b, Atlantische Kuppenfahrten 1967 mit dem Forschungsschiff "Meteor": *Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin-Stuttgart, Reihe A Allgemeines, Physik und Chemie des Meeres*, A5, p. 1–71. [6]
- Closs, H., Hinz, K., Maucher, A., 1972, Mittelmeerfahrten 1969c (Nr. 17) und 1971 (Nr. 22) des Forschungsschiffes "Meteor": *Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin-Stuttgart, Reihe A Allgemeines, Physik und Chemie des Meeres*, A10, p. 31–50. [2] [6]
- Clowes, R.M., 1993, Variations in continental crustal structure in Canada from LITHOPROBE seismic reflection and other data: *Tectonophysics*, v. 219, p. 1–27, doi:10.1016/0040-1951(93)90284-Q. [2] [8] [9]
- Clowes, R.M., editor, 1997, LITHOPROBE Phase V proposal—evolution of a continent revealed. *LITHOPROBE Secretariat: University of British Columbia, Vancouver, B.C.*, 292 p. [8]
- Clowes, R.M., and Green, A.G., editors, 1994, Seismic reflection profiling of the continents and their margins: *Tectonophysics*, v. 232, 450 p. [2] [9]
- Clowes, R.M., and Kanasewich, E.R., 1970, Seismic attenuation and the nature of reflecting horizons within the crust: *Journal of Geophysical Research*, v. 75, p. 6693–6705, doi:10.1029/JB075i032p06693. [6]
- Clowes, R.M., and Kanasewich, E.R., 1972, Digital filtering of deep crustal seismic reflections: *Canadian Journal of Earth Science*, v. 9, p. 434–451. [6]
- Clowes, R.M., Kanasewich, E.R., and Cumming, G.L., 1968, Deep crustal seismic reflections at near-vertical incidence: *Geophysics*, v. 33, p. 441–451, doi:10.1190/1.1439942. [2] [6]
- Clowes, R.M., Green, A.G., Yorath, C.J., Kanasewich, E.R., West, G.F., and Garland, G.D., 1984, LITHOPROBE—a national program for studying the third dimension of geology: *Journal of the Canadian Society of Exploration Geophysicists*, v. 20, p. 23–39. [8]
- Clowes, R.M., Spence, G.D., Ellis, R.M., and Waldron, D.A., 1986, Structure of the lithosphere in a young subduction zone: results from reflection and refraction studies, in Barazangi, M., and Brown, L., eds., *Reflection seismology: the continental crust: American Geophysical Union, Geodynamics Series*, v. 14, p. 313–321. [8] [9]
- Clowes, R.M., Brandon, M.T., Green, A.G., Yorath, C.J., Sutherland Brown, A., Kanasewich, E.R., and Spencer, C., 1987a, LITHOPROBE—southern Vancouver Island: Cenozoic subduction complex imaged by deep seismic reflections: *Canadian Journal of Earth Science*, v. 24, p. 31–51. [8] [9]
- Clowes, R.M., Yorath, C.J., and Hyndman, R.D., 1987b, Reflection mapping across the convergent margin of western Canada: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 79–84. [8]
- Clowes, R.M., Cook, F.A., Green, A.G., Keen, C.E., Ludden, J.N., Percival, J.A., Quinlan, G.M., and West, G.F., 1992, LITHOPROBE—new perspectives on crustal evolution: *Canadian Journal of Earth Science*, v. 29, p. 1813–1864. [2] [8] [9]
- Clowes, R.M., Zelt, C.A., Amor, J.R., and Ellis, R.M., 1995, Lithospheric structure in the southern Canadian Cordillera from a network of seismic

- refraction lines: Canadian Journal of Earth Science v. 32, p. 1485–1513, doi:10.1139/e95-122. [2] [8] [9]
- Clowes, R.M., Calvert, A.J., Eaton, D.W., Hajnal, Z., Hall, J., and Ross, G.M., 1996, LITHOPROBE reflection studies of Archean and Proterozoic crust in Canada: Tectonophysics, v. 264, p. 65–88, doi:10.1016/S0040-1951(96)00118-7. [9]
- Clowes, R.M., Cook, F.A., Hajnal, Z., Hall, J., Lewry, J., Lucas, S., and Wardle, R., 1999, Canada's LITHOPROBE project—collaborative multidisciplinary geoscience research leads to new understanding of continental evolution: Episodes, v. 22, p. 3–20. [2] [9]
- Clowes, R.M., Burianyk, M.J.A., Gorman, A.R., and Kanasewich, E.R., 2002, Crustal velocity structure from SAREX, the Southern Alberta Refraction Experiment: Canadian Journal of Earth Science, v. 39, p. 351–373, doi:10.1139/e01-070. [2] [9]
- Clowes, R.M., Hammer, P.T.C., Fernandez-Viejo, G., and Welford, J.K., 2005, Lithospheric structure in northwestern Canada from Lithoprobe seismic refraction and related studies: a synthesis: Canadian Journal of Earth Science, v. 42, p. 1277–1293, doi:10.1139/e04-069. [2] [9]
- Cohen, T.J., and Meyer, R.P., 1966, The mid-continent gravity high: gross crustal structure, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: American Geophysical Union, Geophysical Monograph 10, p. 141–165. [6]
- Colburn, R.H., and Walter, A.W., 1984, Data report for two seismic-refraction profiles crossing the epicentral region of the 1983 Coalinga, California, earthquakes: Menlo Park, California, U.S. Geological Survey Open-File Report 84-643, 58 p. [8]
- Collette, B.J., Lagaay, R.A., Ritsema, A.R., and Schouten, J.A., 1970, Seismic investigations in the North Sea, 3 to 7: Geophysical Journal of the Royal Astronomical Society, v. 19, p. 183–199. [6]
- Collier, J.S., and Singh, S.C., 1997, Detailed structure of the top of the melt body beneath the East Pacific Rise at 9°40'N from waveform inversion of seismic reflection data: Journal of Geophysical Research, v. 102, p. 20,287–20,304, doi:10.1029/97JB01514. [8]
- Collier, J.S., and Singh, S.C., 1998, Poisson's ratio structure of young oceanic crust: Journal of Geophysical Research, v. 103, p. 20,981–20,996, doi:10.1029/98JB01980. [8]
- Collier, J.S., and Sinha, M.C., 1992, Seismic mapping of a magma chamber beneath the Valu Fa Ridge, Lau Basin: Journal of Geophysical Research, v. 97, p. 14,031–14,053, doi:10.1029/91JB02751. [8]
- Collier, J.S., Minshull, T.A., Kendall, J.-M., Whitmarsh, R.B., Rümpfer, G., Joseph, P., Samson, P., Lane, C.I., Sansom, V., Vermeesch, P.M., Hammond, J., Wookey, J., Teanby, N., Ryberg, T.M., and Dean, S.M., 2004, Rapid continental breakup and microcontinent formation in the western Indian Ocean: Eos (Transactions, American Geophysical Union), v. 85, no. 46, p. 481, 487. [2] [10]
- Collins, C.D.N., 1978, Crustal structure of the central Bowen basin, Queensland: BMR Journal of Australian Geology and Geophysics, v. 3, p. 203–209. [2] [7]
- Collins, C.D.N., 1991, The nature of the crust-mantle boundary under Australia from seismic evidence, in Drummond, B.J., ed., The Australian Lithosphere: Geological Society of Australia Special Publication 17, p. 67–80. [2] [9]
- Collins, C.D.N., Drummond, B.J., and Nicoll, M.G., 2003, Crustal thickness pattern in the Australian continent: Geological Society of Australia Special Paper 273, p. 121–128. [2] [9] [10]
- Collins, J.A., Brocher, T.M., and Karson, J.A., 1986, Two-dimensional seismic reflection modeling of the inferred fossil oceanic crust/mantle transition in the Bay of Islands ophiolite: Journal of Geophysical Research, v. 91, p. 12,520–12,538, doi:10.1029/JB091iB12p12520. [7] [8]
- Colombi, B., Giese, P., Luongo, G., Morelli, C., Riuscetti, M., Scarascia, S., Schütte, K.-G., Strowald, J., and de Vissintini, G., 1973, Preliminary report on the seismic refraction profile Gargano-Salerno-Palermo-Pantelleria (1971): Bollettino di Geofisica Teorica e Applicata, v. 15, p. 225–254. [2] [7] [9]
- Comas, M.C., Danobeitia, J.J., Alvarez-Marron, J., and Soto, J.I., 1995, Crustal reflections and the structure in the Alboran Basin: preliminary results of the ESCI-Alboran survey: Revista de la Sociedad Geológica de España, v. 8, p. 529–542. [9]
- Conrad, V., 1925, Laufzeitkurven des Tauernbebens vom 28.11.1923. Mitt. Erdk. Komm., Wien, Akad. Wiss., Neue Folge, no.59. [3]
- Conrad, V., 1926, Laufzeitkurven eines alpinen Bebens: Zeitschrift für Geophysik, v. 2, p. 34–35. [3]
- Conrad, V., 1928, Das Schwadorfer Beben vom 8. Oktober 1927: Gerlands Beiträge zur Geophysik, v. 20, p. 240–277. [3]
- Constantinescu, P., and Cornea, J., 1972, Roumania, in Sollogub, V.B., Prosen, D., and Miltzner, H., 1972, Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: Geophysical Transactions, spec. ed., Müszaki Könyvkiado, Budapest, chapter 27, p. 113–117. [2] [6]
- Conway, A., Dentith, M.C., Doody, J.J., and Hall, J., 1987, Preliminary interpretation of upper crustal structure across the Midland valley of Scotland from two east-west seismic-refraction profiles: Journal of the Geological Society of London, v. 144, p. 865–870, doi:10.1144/gsjgs.144.6.0865. [8]
- Cook, F.A., ed., 1995, The Southern Canadian Cordillera transect of Lithoprobe: Canadian Journal of Earth Science, v. 32, p. 1483–1824, doi:10.1139/e95-121. [2]
- Cook, F.A., and Erdmer, P., eds., 2005, The Lithoprobe Slave–Northern Cordillera Lithospheric Evolution (SNORCLE) transect: Canadian Journal of Earth Science (special issue), v. 42, p. 865–1311, doi:10.1139/e05-067. [2] [9]
- Cook, F.A., Albaugh, D.S., Brown, L.D., Kaufman, S., Oliver, J.E., and Hatcher, R.D., Jr., 1979a, Thin-skinned tectonics in the crystalline southern Appalachians: COCORP seismic reflection profiling of the Blue Ridge and Piedmont: Geology, v. 7, p. 563–567, doi:10.1130/0091-7613(1979)7<563:TTITCS>2.0.CO;2. [2] [7]
- Cook, F.A., McCullar, D.B., Decker, E.R., and Smithson, S.B., 1979b, Crustal structure and evolution of the southern Rio Grande Rift, in Riecker, R.E., ed., Rio Grande rift: tectonics and magmatism: Washington, D.C., American Geophysical Union, p. 195–208. [7]
- Cook, F.A., Brown, L.D., Kaufman, S., Oliver, J.E., and Peterson, T.A., 1981, COCORP seismic profiling of the Appalachian orogen beneath the coastal plain of Georgia: Geological Society of America Bulletin, part I, v. 92, p. 738–748, doi:10.1130/0016-7606(1981)92<738:CSPOTA>2.0.CO;2. [7]
- Cook, F.A., Coffin, K.C., Lane, L.S., Dietrich, J.R., and Dixon, J., 1987, Structure of the southeast margin of the Beaufort–Mackenzie basin, Arctic Canada, from crustal seismic-reflection data: Geology, v. 15, p. 931–935, doi:10.1130/0091-7613(1987)15<931:SOTSMO>2.0.CO;2. [8]
- Cook, F.A., van der Velden, A.J., Hall, K.W., and Roberts, B.J., 1998, Tectonic delamination and subcrustal imbrication of the Precambrian lithosphere in northwestern Canada, mapped by LITHOPROBE: Geology, v. 26, p. 839–842, doi:10.1130/0091-7613(1998)026<0839:TDASIO>2.3.CO;2. [9]
- Cook, F.A., van der Velden, A.J., Hall, K.W., and Roberts, B.J., 1999, Frozen subduction in Canada's Northwest Territories: LITHOPROBE deep lithospheric reflection profiling in the western Canadian Shield: Tectonics, v. 18, p. 1–24, doi:10.1029/1998TC900016. [9]
- Cordoba, D., and Banda, E., 1980, Gradiéntes de velocidad en la corteza y manto superior de las islas baleares (Mar Mediterraneo): Geofísica Internacional, Mexico, v. 19, p. 285–303. [7]
- Cordoba, D., Banda, E., and Ansorge, J., 1987, The Hercynian crust in northwestern Spain: a seismic survey: Tectonophysics, v. 132, p. 321–333, doi:10.1016/0040-1951(87)90351-9. [2] [8]
- Cormier, M.H., Detrick, R.S., and Purdy, G.M., 1984, Anomalously thin crust in oceanic fracture zones: new seismic constraints from the Kane fracture zone: Journal of Geophysical Research, v. 89, p. 10,249–10,266, doi:10.1029/JB089iB12p10249. [2] [7] [8]
- Cornea, I., Radulescu, F., Pompilian, A., and Sova, A., 1981, Deep seismic soundings in Romania: PAGEOPH, v. 119, p. 1144–1156, doi:10.1007/BF00876693. [7]
- Coruh, C., Costain, J.K., Hatcher, R.D., Jr., Pratt, T.L., Williams, R.T., and Pinney, R.A., 1987, Results from regional vibroseis profiling: Appalachian ultradeep core hole site study: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 147–156. [2] [8]
- Costain, J.K., Hatcher, R.D., Jr., and Coruh, C., 1989a, Appalachian ultradeep core hole (ADCOH) site investigation: regional seismic lines and geologic interpretation, in Bally, A.W., and Palmer, A.R., eds., The Geology of North America—An overview: Boulder, Colorado, Geological Society of America, Geology of North America, vol. A, Plate 8. [8]
- Costain, J.K., Hatcher, R.D., Jr., and Coruh, C., 1989b, Appalachian ultradeep core hole (ADCOH) site investigation: regional seismic lines and geologic interpretation, in Hatcher, R.D., Jr., Thomas, W.A., and Viele, G.W., eds., The Appalachian-Ouachita orogen in the United States: Boulder, Colorado, Geological Society of America, Geology of North America, vol. F-2, Plate 12. [8]

- Cotton, J.A., and Catchings, R.D., 1988, Data report for the 1984 U.S. Geological Survey central Columbia Plateau seismic-refraction experiment, Washington-Oregon: Menlo Park, California, U.S. Geological Survey Open-File Report 88-226, 56 p. [8]
- Cotton, J.A., and Catchings, R.D., 1989, Data report for the 1983 U.S. Geological Survey east-central Oregon seismic-refraction experiment, Washington-Oregon: Menlo Park, California, U.S. Geological Survey Open-File Report 89-124, 30 p. [8]
- Cram, Jr., I.H., 1961, A crustal structure refraction survey in south Texas: *Geophysics*, v. 26, p. 560–573, doi:10.1190/1.1438915. [6]
- Crawford, W.C., Hildebrand, J.A., Dorman, L.M., Webb, S.C., and Wiens, D.A., 2003, Tonga ridge and Lau Basin crustal structure from seismic refraction data: *Journal of Geophysical Research*, v. 108, no. B4, doi:10.1029/2001JB001435. [2] [10]
- Creaser, B., and Spence, G., 2005, Crustal structure across the northern Cordillera, Yukon Territory, from seismic wide-angle studies: Omineca Belt to Intermontane Belt: *Canadian Journal of Earth Science*, v. 42, p. 1187–1203, doi:10.1139/e04-093. [9]
- Criley, E., and Eaton, J., 1978, Five-day recorder seismic system: Menlo Park, California, U.S. Geological Survey Open-File Report 78-266, 85 p. [8]
- Csontos, L., Nagymarosy, A., Horvath, F., and Kovac, M., 1992, Tertiary evolution of the Intra-Carpathian area: a model: *Tectonophysics*, v. 208, p. 221–241, doi:10.1016/0040-1951(92)90346-8. [9]
- Czuba, W., Grad, M., and Guterch, A., 1999, Crustal structure of northwestern Spitsbergen from DSS measurements: *Polish Polar Research*, v. 20, p. 131–148. [2] [8] [9]
- Czuba, W., Grad, M., Luosto, U., Motuza, G., Nasedkin, V., and POLONAISE P5 Working Group, 2001, Crustal structure of the East European Craton along the POLONAISE'97 P5 profile: *Acta Geophysica Polonica*, v. 49, no. 2, p. 145–168. [9]
- Czuba, W., Grad, M., Luosto, U., Motuza, G., Nasedkin, V., and POLONAISE P5 Working Group, 2002, Upper crustal seismic structure of the Mazury complex and Mazowsze massif within East European Craton in NE Poland: *Tectonophysics*, v. 360, p. 115–128, doi:10.1016/S0040-1951(02)00352-9. [9]
- Czuba, W., Ritzmann, O., Nishimura, Y., Grad, M., Mjelde, R., Guterch, A., and Jokat, W., 2004, Crustal structure of the continent-ocean transition zone along two deep seismic transects in northwestern Spitsbergen: *Polish Polar Research*, v. 25, p. 205–221. [2] [9]
- Dachev, K., Petkov, I., Velchev, Ts., Andronova, E., Mikhailov, S., 1972, Bulgaria, in Sollogub, V.B., Prosen, D., and Militzer, H., eds., Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: *Geophysical Transactions*, spec. ed., Müszaki Könyvkiadó, Budapest, chapter 26, p. 106–112. [2] [6]
- Dadlez, R., Grad, M., and Guterch, A., 2005, Crustal structure below the Polish Basin: is it composed of proximal terranes derived from Baltica?: *Tectonophysics*, v. 411, p. 111–128, doi:10.1016/j.tecto.2005.09.004. [9]
- Dahl-Jensen, T., Thybo, H., Hopper, J., and Rosing, M., 1998, Crustal structure at the SE Greenland margin from wide-angle and normal-incidence seismic data, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 191–198. [2] [9]
- Daignières, M., Gallart, J., Banda, E., and Hirn, A., 1982, Implications of the seismic structure for the orogenic evolution of the Pyrenean range: *Earth and Planetary Science Letters*, v. 57, p. 88–100, doi:10.1016/0012-821X(82)90175-3. [7]
- Dainty, A.M., Keen, C.E., Keen, M.J., and Blanchard, J.E., 1966, Review of geophysical evidence on crust and upper mantle structure on the eastern seabord of Canada, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: Washington, D.C., American Geophysical Union Geophysical Monograph 10, p. 349–368. [6] [7]
- Daley, M.A., Ambos, E.L., and Fuis, G.S., 1985, Seismic refraction data collected in the Chugach Mountains and along the Glenn Highway in southern Alaska in 1984: Menlo Park, California, U.S. Geological Survey Open-File Report 78-266, 44 p. [8]
- Daly, R.A., 1914, Igneous rocks and their origin: New York, McGraw-Hill, 561 p. [3]
- Danobeitia, J.J., Arguedas, M., Gallart, J., Banda, E., and Makris, J., 1992, Deep seismic configuration of the Valencia Trough and its Iberian and Balearic borders from extensive refraction-wide angle reflection seismic profiling, in Banda, E., and Santanach, P., eds., *Geology and Geophysics* of the Valencia Trough, Western Mediterranean: *Tectonophysics*, v. 302, p. 37–55. [2] [8]
- Darbyshire, F.A., Bjarnason, I.Th., White, R.S., and Flóvenz, O.G., 1998, Crustal structure above the Iceland mantle plume imaged by the ICEMELT refraction profile: *Geophysical Journal International*, v. 135, p. 1131–1149, doi:10.1046/j.1365-246X.1998.00701.x. [2] [9]
- Dash, B.P., Ball, M.M., King, G.A., Butler, L.W., and Rona, P.A., 1976, Geophysical investigation of the Cape Verde archipelago: *Journal of Geophysical Research*, v. 81, p. 5249–5259, doi:10.1029/JB081i029p05249. [7]
- Dauphin, J.P., and Simoneit, B.R.T., 1991, The Gulf and peninsula province of the Californias: *American Association of Petroleum Geologists Memoir* 47, 834 p. [8]
- Davey, F.J., 1987, Seismic reflection measurements behind the Hikurangi convergent margin, southern North Island, New Zealand: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 443–448. [2] [8]
- Davey, F.J., 2005, A Mesozoic crustal suture on the Gondwana margin in the New Zealand region: *Tectonics*, v. 24, no. 4, TC4006, doi:1029/2004TC001719. [2] [9]
- Davey, F.J., and Broadbent, M., 1980, Seismic refraction measurements in Fiordland, southwest New Zealand: *New Zealand Journal of Geology and Geophysics*, v. 23, no. 4, p. 395–406. [2] [6] [7]
- Davey, F.J., and Jones, L.E.A., eds., 2004, Continental lithosphere: *Tectonophysics*, v. 388, 297 p. [2] [9] [10]
- Davey, F.J., and Lodolo, E., 1995, Crustal seismic reflection measurements across an ensialic back-arc basin (Bay of Plenty, New Zealand): *Bullettino di Geofisica Teorica e Applicata*, v. 37, p. 25–37. [2] [9]
- Davey, F.J., and Smith, E.G.C., 1983, A crustal seismic reflection-refraction experiment across the subducted Pacific Plate under Wellington, New Zealand: *Physics of the Earth and Planetary Interiors*, v. 31, p. 327–33, doi:10.1016/0031-9201(83)90092-4. [2] [7]
- Davey, F.J., and Stern, T.A., 1990, Crustal seismic observations across the convergent plate boundary, North Island, New Zealand: *Tectonophysics*, v. 173, p. 283–296, doi:10.1016/0040-1951(90)90224-V. [2] [8]
- Davey, F.J., Hampton, M., Childs, J., Fisher, M., Lewis, K., and Pettinga, J.R., 1986, Structure of a growing accretionary prism, Hikurangi margin, New Zealand: *Geology*, v. 14, p. 663–666, doi:10.1130/0091-7613(1986)14<663:SOAGAP>2.0.CO;2. [2] [8]
- Davey, F.J., Henrys, S.A., and Lodolo, E., 1995, Asymmetric rifting in a continental back-arc environment, North Island, New Zealand: *Journal Volcanology and Geothermal Research*, v. 68, p. 209–238, doi:10.1016/0377-0273(95)00014-L. [9]
- Davey, F.J., Henyey, T., Holbrook, W.S., Okaya, D., Stern, T.A., Melhuish, A., Henrys, S., Anderson, H., Eberhart-Phillips, D., McEvilly, T., Uhrhammer, R., Wu, F., Jirazek, G.R., Wannamaker, P.E., Caldwell, G., and Christensen, N., 1998, Preliminary results from a geophysical study across a modern, continent-continent collisional plate boundary—the Southern Alps, New Zealand, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 221–235. [2] [9]
- Davies, D., and Francis, T.J.G., 1964, The crustal structure of the Seychelles Bank: *Deep-Sea Research*, v. 11, p. 921–927. [6]
- Davy, B.R., Hoernle, K., and Werner, R., 2008, Hikurangi Plateau: Crustal structure, rifted formation, and Gondwana subduction history: *Geochemistry Geophysics Geosystems*, v. 9, Q07004, doi:10.1029/2007GC001855. [2] [10]
- Davydova, N.I., Pavlenkova, N.I., Tulina, Yu.V., and Zverev, S.M., 1985, Crustal structure of the Barents Sea from seismic data, in Husebye, E.S., Johnson, G.L., and Kristoffersen, Y., eds., *Geophysics of the Polar Region*: *Tectonophysics*, v. 114, p. 213–231. [7] [8]
- Dawson, P.B., and Stauber, D.A., 1986, Data report for a three-dimensional high-resolution P-velocity structural investigation of Newberry Volcano, Oregon, using seismic tomography: Menlo Park, California, U.S. Geological Survey Open-File Report 86-352, 45 p. [8]
- de Quervain, A., 1931, Beitrag zur experimentellen Bestimmung der Geschwindigkeit der Erdbebenwellen in den obersten Schichten. (a) Sprengung bei Alpnach am 25. März 1922. (b) Die Registrierung der Explosion des Forts Falconara bei Spezia am 28. September 1922. Jahresber. Schweizer. Erdbebendienstes, 1931, p. 7–9. [3]
- de Voogd, B., Serpa, L., and Brown, L., 1988, Crustal extension and magmatic processes: COCORP profiles from Death Valley and the Rio Grande rift: *Geological Society of America Bulletin*, v. 100, p. 1550–1567, doi:10.1130/0016-7606(1988)100<1550:CEAMPC>2.3.CO;2. [2] [8]

- de Voogd, B., Keen, C., and Kay, W.A., 1990, Fault reactivation during Mesozoic extension in eastern offshore Canada, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., Seismic probing of continents and their margins: Tectonophysics: v. 173, p. 567–580. [8]
- de Voogd, B., Nicolich, R., Olivet, J.I., Fanucci, F., Burrus, J., Maufret, A., Pascal, G., Argani, A., Auzende, J.M., Bernabini, M., Bois, C., Carmignani, L., Fabbri, A., Finetti, L., Galdeano, A., Gorini, C.Y., Labaume, P., Laiat, D., Patriat, P., Pinet, B., Ravat, J., Ricci Lucci, F., and Vernassa, S., 1991, First deep seismic reflection transect from the Gulf of Lions to Sardinia (ECORS-CROP profiles in Western Mediterranean): Geodynamics, v. 22, p. 265–274. [8]
- de Voogd, B., Truffert, C., Chamot-Rooke, N., Huchon, P., Lallemand, S., and Le Pichon, X., 1992, Two-ship deep seismic soundings in the basin of the Eastern Mediterranean Sea (Pasiphae Cruise): Geophysical Journal International, v. 109, p. 536–552, doi:10.1111/j.1365-246X.1992.tb00116.x. [9]
- Dean, S.M., Minshull, T.A., Whitmarsh, R.B., and Louden, K.E., 2000, Deep structure of the ocean-continent transition in the southern Iberia Abyssal Plain from seismic refraction profiles: II. The IAM-9 transect at 40° 20' N: Journal of Geophysical Research, v. 105, p. 5859–5886, doi:10.1029/1999JB900301. [9]
- Deep Probe Working Group, 1998, Probing the Archean and Proterozoic Lithosphere of Western North America: GSA Today, v. 8, no. 7, p. 1–17. [9]
- DEKORP and OROGENIC PROCESSES Working Groups, 1999, Structure of the Saxonian Granulites—geological and geophysical constraints on the exhumation of HP/HT-rocks: Tectonics, v. 18, p. 756–773, doi:10.1029/1999TC900030. [9]
- DEKORP Research Group, 1985, First results and preliminary interpretation of deep reflection seismic recordings along DEKORP 2 South: Journal of Geophysics, v. 57, p. 137–163. [2] [8]
- DEKORP Research Group, 1988, Results of the DEKORP 4/KTB Oberpfalz deep seismic reflection investigations: Journal of Geophysics, v. 62, p. 69–101. [2] [8]
- DEKORP Research Group, 1991, Results of the DEKORP 1 (BELCORP-DEKORP) deep seismic reflection studies in the western part of the Rhenish Massif: Geophysical Journal International, v. 106, p. 203–227, doi:10.1111/j.1365-246X.1991.tb04612.x. [2] [8]
- DEKORP Research Group, 1994, The deep reflection seismic profiles DEKORP 3/MVE-90: Zeitschrift für Geologische Wissenschaften, v. 22, p. 623–825. [2] [8] [9]
- DEKORP Research Group (A), 1994a, Profile DEKORP 3/MVE-90: Reflection seismic field measurements and data processing: Zeitschrift für Geologische Wissenschaften, v. 22, no. 6, p. 627–646. [2] [9]
- DEKORP Research Group (B), 1994b, Crustal structure of the Saxothuringian Zone: Results of the deep seismic profile MVE-90(East): Zeitschrift für Geologische Wissenschaften, v. 22, no. 6, p. 647–769. [9]
- DEKORP/BASIN Research Group, 1998, Survey provides seismic insights into an old suture zone: Eos (Transactions, American Geophysical Union), v. 79, no. 12, p. 151–159. [9]
- DEKORP/BASIN Research Group, 1999, The deep structure of the NE German Basin—Constraints on the controlling mechanisms of intracontinental basin development: Geology, v. 27, p. 55–58. [9]
- Demachi, T., Hasemi, A., Iwasaki, T., and Okudera, M., 2004, Three-dimensional P wave velocity structure of shallow crust beneath the northern Awaji Island derived from refraction seismic explosion: Earth, Planets, and Space, v. 56, p. 473–477. [9]
- Den, N., Ludwig, W.J., Ewing, J.I., Murauchi, S., Hotta, H., Edgar, N.T., Yoshii, T., Asanuma, T., Hagiwara, K., Sato, T., and Ando, S., 1969, Seismic refraction measurements in the Northwest Pacific Basin: Journal of Geophysical Research, v. 74, no. 6, p. 1421–1434, doi:10.1029/JB074i006p01421. [2] [6]
- Denham, D., Simpson, D.W., Gregson, P.J., and Sutton, D.J., 1972, Travel times and amplitudes from explosions in northern Australia: Geophysical Journal of the Royal Astronomical Society, v. 28, p. 225–235. [2] [6] [7]
- Dentith, M.C., and Hall, J., 1990, MAVIS: Geophysical constraints on the structure of the Carboniferous basin of West Lothian: Transactions of the Royal Society of Edinburgh, v. 81, no. 2, p. 117–126. [2] [8]
- Dentith, M.C., Dent, V.F., and Drummond, B.J., 2000, Deep crustal structure in the southwestern Yilgarn Craton, Western Australia: Tectonophysics, v. 325, p. 227–255, doi:10.1016/S0040-1951(00)00119-0. [7] [8]
- DESERT Group, 2004, The crustal structure of the Dead Sea transform: Geophysical Journal International, v. 156, p. 655–681, doi:10.1111/j.1365-246X.2004.02143.x. [2] [9]
- DESERT Team, 2000, Multinational geoscientific research effort kicks off in the Middle East: Eos (Transactions, American Geophysical Union), v. 81, p. 609, 616–617. [9]
- Detrick, R.S., and Purdy, G.M., 1980, The crustal structure of the Kane fracture zone from seismic refraction studies: Journal of Geophysical Research, v. 85, p. 3759–3778, doi:10.1029/JB085iB07p03759. [2] [7] [8]
- Detrick, R.S., Buhl, P., Vera, E., Mutter, J., Orcutt, J., Madsen, J., and Brocher, T., 1987, Multichannel seismic imaging of a crustal magma chamber along the East Pacific Rise: Nature, v. 326, p. 35–41, doi:10.1038/326035a0. [2] [8] [9]
- Detrick, R.S., Harding, A.J., Kent, G.M., Orcutt, J.A., Mutter, J.C., and Buhl, P., 1993a, Seismic structure of the southern East Pacific Rise: Science, v. 259, p. 499–503, doi:10.1126/science.259.5094.499. [9]
- Detrick, R.S., White, R.S., and Purdy, G.M., 1993b, Crustal structure of North Atlantic fracture zones: Reviews of Geophysics, v. 31, p. 439–458, doi:10.1029/93RG01952. [8]
- Detrick, R., Collins, J., Stephen R. and Swift, S., 1994, In situ evidence for the nature of the seismic layer 2/3 boundary in oceanic crust: Nature, v. 370, p. 288–290, doi:10.1038/370288a0. [2] [8]
- Dewey, J., And Byerly, P., 1969, The early history of seismometry: Bulletin of the Seismological Society of America, v. 59, no. 1, p. 183–227. [2] [3] [10]
- Díaz, J., and Gallart, J., 2009, Crustal structure beneath the Iberian peninsula and surrounding waters: a new compilation of deep seismic sounding results: Physics of the Earth and Planetary Interiors, v. 173, p. 181–190, doi:10.1016/j.pepi.2008.11.008. [2] [8] [9] [10]
- Diebold, J.B., Stoffa, P.L., and Study Group LASE, 1988, A large aperture seismic experiment in the Baltimore Canyon trough, in Sheridan, R.E., and Grow, J.A., The Atlantic Continental Margin: Boulder, Colorado, Geological Society of America, Geology of North America, vol. I-2, p. 387–398. [8]
- Dieterle, G., and Peterschmitt, E., 1964, Expedition Antarctique Belge 1959: sondages sismiques en Terre de la Reine Maud: Memoires de l'Academie Royale des Sciences d'Outre-Mer, Classe des Sciences techniques, N.S., Tome XIII, fasc. 4, p. 101 p. [2] [5]
- Diment, W.H., Stewart, S.W., and Roller, J.C., 1961, Crustal structure from the Nevada Test Site to Kingman, Arizona, from seismic and gravity observations: Journal of Geophysical Research, v. 66, p. 201–214, doi:10.1029/JZ066i001p00201. [2] [5] [6]
- Ding, W., Huang, C., Cao, J., and Jiang, G., 1988, Crustal structures along Suxian-Xian DSS profile, in Developments in the Research of Deep Structures of China's Continent. Geological Publishing House, Beijing, p. 38–47. [8]
- Dix, C.H., 1965, Reflection seismic crustal studies: Geophysics, v. 30, p. 1068–1084. [6]
- DOBREReflection-2000 and DOBREfraction '99 Working Groups, 2002, DOBRE Studies Evolution of Inverted Intra-cratonic Rifts in Ukraine: Eos (Transactions, American Geophysical Union), v. 83, p. 323, 326–327. [9]
- DOBREfraction '99 Working Group, 2003, “DOBREfraction '99”—velocity model of the crust and upper mantle beneath the Donbass Foldbelt (East Ukraine): Tectonophysics, v. 371, p. 81–110. [2] [9]
- Dobrin, M.B., 1976, Introduction to geophysical prospecting, 3rd. ed.: McGraw-Hill, New York, 630 p. [7]
- Dohr, G., 1957, Ein Beitrag der Reflexionseismik zur Erforschung des tieferen Untergrundes: Geologische Rundschau, v. 46, p. 17–26, doi:10.1007/BF01802879. [5] [6] [8]
- Dohr, G., 1959, Über die Beobachtungen von Reflexionen aus dem tieferen Untergrund im Rahmen routinemässiger reflexionseismischer Messungen: Zeitschrift für Geophysik, v. 25, p. 280–300. [2] [5] [6]
- Dohr, G., 1972, Reflexionseismische Tiefensondierung: Zeitschrift für Geophysik, v. 38, p. 193–220. [8]
- Dohr, G., 1983, Ergebnisse geophysikalischer Untersuchungen über den Bau des Nordwestdeutschen Beckens: Erdöl-Erdgas, v. 99, p. 252–267. [6]
- Dohr, G., and Fuchs, K., 1967, Statistical evaluation of deep crustal reflections in Germany: Geophysics, v. 32, p. 951–967, doi:10.1190/1.1439908. [2] [6]
- Dohr, G., Bachmann, G.H., and Grosse, S., 1989, Das Norddeutsche Becken. Ergebnisse geophysikalischer Arbeiten zur Untersuchung des tieferen Untergrundes: Niedersächsische Akademie der Geowissenschaften, 2. Hannover, Veroefft, p. 4–47. [7] [8]
- Doody, J.J., and Brooks, M., 1982, Recent seismic refraction studies in SW England: Geophysical Journal of the Royal Astronomical Society, v. 69, p. 278. [2] [7]

- Dooley, J.C., 1979, A geophysical profile across Australia at 29°S: BMR Journal of Australian Geology and Geophysics, v. 4, p. 353–359. [7]
- Dooley, J.C., and Moss, F.J., 1988, Deep crustal reflections in Australia 1957–1973—II. Crustal models: Geophysical Journal of the Royal Astronomical Society, v. 93, p. 239–249. [2] [6] [7]
- Dorman, L.M., 2001, Seismology sensors, in Steele, J., Thorpe, S., and Turekian, K., eds., Encyclopedia of Ocean Sciences: Academic Press, Elsevier, Amsterdam, p. 2737–2744. [10]
- Doyle, H.A., 1957, Seismic recordings of atomic explosions in Australia: Nature, v. 180, p. 132–134, doi:10.1038/180132a0. [5]
- Doyle, H.A., Everingham, I.B., and Hogan, T.K., 1959, Seismic recordings of large explosions in southeastern Australia: Australian Journal of Physics, v. 12, p. 222. [2] [5]
- Drake, C.L., and Girdler, R.W., 1964, A geophysical study of the Red Sea: Geophysical Journal, v. 8, p. 473–495, doi:10.1111/j.1365-246X.1964.tb06303.x. [5] [6]
- Drake, C.L., Worzel, J.L., and Beckmann, W., 1952, Seismic refraction measurements in the Gulf of Maine: Bulletin of the Seismological Society of America, v. 42 (12.2), p. 1244–1245. [2] [4] [5]
- Drummond, B.J., 1979, A crustal profile across the Archaean Pilbara and northern Yilgarn cratons, northwest Australia: BMR Journal of Australian Geology and Geophysics, v. 4, p. 171–180. [2] [7]
- Drummond, B.J., 1981, Crustal structure of the Precambrian terrains of northwest Australia from seismic refraction data: BMR Journal of Australian Geology and Geophysics, v. 6, p. 123–135. [2] [7]
- Drummond, B.J., 1988, A review of crust–upper mantle structure in the Precambrian areas of Australia and implications for Precambrian crustal evolution: Precambrian Research, v. 40–41, p. 101–116, doi:10.1016/0301-9268(88)90063-0. [2] [7] [8]
- Drummond, B.J., ed., 1991, The Australian lithosphere: Geological Society of Australia Special Publication 17, 208 p. [2] [8]
- Drummond, B.J., Collins, C.D.N., and Gibson, G., 1979, The crustal structure of Papua and northwest Coral Sea: BMR Journal of Australian Geology and Geophysics, v. 4, p. 341–351. [7]
- Drummond, B.J., Goleby, B.R., Goncharov, A.G., Wyborn, L.A.I., Collins, C.D.N., and MacCready, T., 1998, Crustal-scale structures in the Proterozoic Mount Isa Inlier of north Australia, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: Tectonophysics, v. 288, p. 43–56. [2] [9]
- Drummond, B.J., Goleby, B.R., and Swager, C.P., 2000a, Crustal signature of late Archaean tectonic episodes in the Yilgarn craton, western Australia: evidence from deep seismic sounding: Tectonophysics, v. 329, p. 193–221, doi:10.1016/S0040-1951(00)00196-7. [2] [9]
- Drummond, B.J., Barton, T.J., Korsch, R.J., Rawlinson, N., Yeates, A.N., Collins, C.D.N., and Brown, A.V., 2000b, Evidence for crustal extension and inversion in eastern Tasmania, Australia, during Neoproterozoic and Early Palaeozoic: Tectonophysics, v. 329, p. 1–21, doi:10.1016/S0040-1951(00)00185-2. [2] [9]
- Drummond, B.J., Lyons, P., Goleby, B.R., and Jones, L., 2006, Constraining models of the tectonic setting of the giant Olympic Dam iron oxide–copper–gold deposit, South Australia, using deep seismic reflection data: Tectonophysics, v. 420, p. 91–103, doi:10.1016/j.tecto.2006.01.010. [2] [10]
- Dürbaum, H.-J., Fritsch, J., and Nickel, H., 1971, Untersuchungen über den Charakter der Reflexionen aus grossen Tiefen: Beih. Geologisches Jahrbuch, v. 90, p. 99–133. [8]
- Dürbaum, H.-J., Hinz, K., and Makris, J., 1977, Seismic studies in the Cretan Sea: “Meteor” Forschungsergebnisse, Reihe C, no. 27, Borntraeger, Berlin-Stuttgart, 45 p. [7]
- Dürbaum, H.-J., Reichert, C., Sadowiak, P., and Bram, K., eds., 1992, Integrated Seismics Oberpfalz 1989, data evaluation and interpretation as of October 1992, KTB report 92-5/DEKORP report, NLFB Hannover: 373 p. [2] [8]
- Dürbaum, H.-J., Dohr, G., and Meissner, R., 1997, Das Deutsche Kontinentale Reflexionsseismische Programm (DEKORP), in Neuhöfer, H., Börngen, M., Junge, A., and Schweitzer, J., eds., Zur Geschichte der Geophysik in Deutschland: Jubiläumsschrift zur 75jährigen Wiederkehr der Gründung der Deutschen Geophysikalischen Gesellschaft, Hamburg, p. 149–155. [8]
- Durrheim, R.J., 1986, Recent reflection seismic developments in the Witwatersrand basin, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 77–83. [2] [8]
- Durrheim, R.J., 1987, Seismic reflection and refraction studies of the deep structure of the Agulhas Bank: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 395–398. [2] [8]
- Durrheim, R.J., Nicolaysen, L.O., and Corner, B., 1991, A deep seismic reflection profile across the Archean-Proterozoic Witwatersrand basin, South Africa, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., Continental lithosphere: deep seismic reflections: American Geophysical Union, Geodynamics Series, v. 22, p. 213–224. [2] [8]
- Duschenes, J., Potts, C., and Rayner, M.P.W., 1985, Cambridge deep ocean geophone: Marine Geophysical Researches, v. 7, p. 455–466, doi:10.1007/BF00368950. [8]
- Eaton, J.P., 1963, Crustal structure between Eureka, Nevada, and San Francisco, California, from seismic-refraction measurements: Journal of Geophysical Research, v. 68, p. 5789–5806. [6]
- Eaton, J.P., 1966, Crustal structure in northern and central California from seismic evidence, in Bailey, E.H., ed., Geology of Northern California: California Division of Mines Geological Bulletin, v. 190, p. 419–426. [6]
- Ebeniro, J.O., Nakamura, Y., Sawyer, D.S., and O’Brien, W.P., Jr., 1988, Sedimentary and crustal structure of the northwestern Gulf of Mexico: Journal of Geophysical Research, v. 93, p. 9075–9092, doi:10.1029/JB093iB08p09075. [8]
- ECORS Pyrenees Team, 1988, The ECORS deep reflection seismic survey across the Pyrenees: Nature, v. 331, p. 508–511, doi:10.1038/331508a0. [2] [8]
- Edel, J.B., Fuchs, K., Gelbke, C., Prodehl, C., 1975, Deep structure of the southern Rhinegraben area from seismic-refraction investigations: Zeitschrift für Geophysik, v. 41, p. 333–356. [2] [7] [8]
- Edgar, N.T., Ewing, J.I., and Hennion, J., 1971, Seismic refraction and reflection in Caribbean Sea: American Association of Petroleum Geologists Bulletin, v. 55 (6), p. 833–870. [2] [5]
- Edwards, R.A., Whitmarsh, R.B., and Scrutton, R.A., 1997, The crustal structure across the transform continental margin off Ghana, eastern equatorial Atlantic: Journal of Geophysical Research, v. 102, p. 747–772, doi:10.1029/96JB02098. [2] [9]
- Egger, A., 1990, A comprehensive compilation of seismic refraction data along the southern segment of the European Geotraverse from the northern Apennines to the Sardinia Channel (1979–1985). Open-File Report, Institut für Geophysik, ETH-Hönggerberg, Zurich, Switzerland, 202 p. [8]
- Egger, A., 1992, Lithospheric structure along a transect from the northern Apennines to Tunisia derived from seismic refraction data [Ph.D. thesis no. 9675]: ETH Zurich, 207 p. [8]
- Egger, A., Demartin, M., Ansorge, J., Banda, E., and Maistrello, M., 1988, The gross structure of the crust under Corsica and Sardinia, in Freeman, R., Berthelsen, A., and Mueller, St., eds., The European Geotraverse, Part 4: Tectonophysics, v. 150, p. 363–389. [2] [8]
- Egloff, F., Rihm, R., Makris, J., Izeldyn, Y.A., Bobbien, M., Meier, K., Junge, P., Noman, T., and Warsi, W., 1991, Contrasting styles of the eastern and western margins of the southern Red Sea: the 1988 SONNE experiment, in Makris, J., Mohr, P., and Rihm, R., eds., Red Sea: birth and early history of a new oceanic basin: Tectonophysics, v. 198, p. 329–353. [2] [8]
- Egorkin, A.V., 1999, Deep seismic studies based on three-component recording of ground motions: Izvestija, Physics of the Solid Earth, v. 35, p. 566–585 (translated from Fizika Zemli, no. 7–8, 1999, p. 44–64). [8]
- Egorkin, A.V., and Chernyshov, N.M., 1983, Peculiarities of mantle waves from long-range profiles: Journal of Geophysics, v. 54, p. 30–34. [8]
- Egorkin, A.V., and Pavlenkova, N.I., 1981, Studies of mantle structure of U.S.S.R. territory on long-range seismic profiles: Physics of the Earth and Planetary Interiors, v. 25, p. 12–26, doi:10.1016/0031-9201(81)90125-4. [2] [7]
- Egorkin, A.V., Zuganov, S.K., Pavlenkova, N.I., and Chernyshev, N.M., 1987, Results of lithosphere studies from long-range profiles in Siberia: Tectonophysics, v. 140, p. 29–47, doi:10.1016/0040-1951(87)90138-7. [8]
- Egorkin, A.V., Kosminskaya, I.P., and Pavlenkova, N.I., 1991, Multi-wave studies of the continental lithospheres: Physics of the Earth, v. 9, p. 82–96. [2] [8]
- Eiby, G.A., 1955, New Zealand crustal structure: Nature, v. 176, p. 32, doi:10.1038/176032a0. [5]
- Eiby, G.A., 1957, Crustal Structure project: the Wellington Profile: New Zealand Department of Science and Industrial Research, Geophysical Memoir, v. 5, p. 6–28. [5]
- El-Isa, Z., Mechie, J., Prodehl, C., Makris, J., and Rihm, R., 1987a, A crustal structure study of Jordan derived from seismic refraction data:

- Tectonophysics, v. 138, p. 235–253, doi:10.1016/0040-1951(87)90042-4. [2] [8] [9]
- El-Isa, Z., Mechle, J., and Prodehl, C., 1987b, Shear velocity structure of Jordan from explosion seismic data: *Geophysical Journal of the Royal Astronomical Society*, v. 90, p. 265–281. [8]
- Ellis, R.M., Spence, G.D., Clowes, R.M., Waldron, A., Jones, I.F., Green, A.G., Forsyth, D.A., Mair, J.A., Berry, M.J., Mereu, R.F., Kanasewich, E.R., Cumming, G.L., Hajnal, Z., Hyndman, R.D., McMechan, G.A., and Loncarevic, B.D., 1983, The Vancouver Island seismic project: A COCRUST onshore-offshore study of a convergent margin: *Canadian Journal of Earth Science*, v. 20, p. 719–741. [8]
- Ellsworth, W.L., 1990, Earthquake history, 1769–1989, in Wallace, G.E., ed., *The San Andreas fault system, California: U.S. Geological Survey Professional Paper 1515*, p. 153–187. [9]
- Emmermann, R., and Wohlenberg, J., eds., 1989, *The German continental deep drilling program (KTB)—site-selection studies in the Oberpfalz and Schwarzwald*: Springer, Berlin-Heidelberg, 553 p. [2] [8]
- Enciu, D.M., Knapp, C.C., and Knapp, J.H., 2009, Revised crustal architecture of the southeastern Carpathian foreland from active and passive seismic data: *Tectonics*, v. 28, TC4013, 20 p., doi:10.1029/2008TC002381. [10]
- Enderle, U., 1998, Signaturen in refraktionsseismischen Daten als Abbild geodynamischer Prozesse [Ph.D. thesis]: University of Karlsruhe, 220 p. [9]
- Enderle, U., Tittgemeyer, M., Itzin, M., Prodehl, C., and Fuchs, K., 1997, Scales of structure in the lithosphere—images of processes, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Stress and stress release in the lithosphere—structure and dynamic processes in the rifts of western Europe*: *Tectonophysics*, v. 275, p. 165–198. [9]
- Enderle, U., Schuster, K., Prodehl, C., Schulze, A., and Bribach, J., 1998a, The refraction seismic experiment GRANU95 in the Saxothuringian belt, SE-Germany: *Geophysical Journal International*, v. 133, p. 245–259, doi:10.1046/j.1365-246X.1998.00462.x. [2] [9]
- Enderle, U., Spindler, S., Goertz, A., Prodehl, C., Schulze, A., and Schuster, K., 1998b, A compilation of data from the GRANU95 seismic-refraction experiment in SW-Germany. Open-File Report 98-1, Geophysical Institute, University of Karlsruhe, 208 p. [9]
- Engelhard, L., 1998, 50 Jahre Helgolandsprengung: *Mitteilungen Deutsche Geophys. Ges.*, ISSN 0934-6554, Nr. 2/1998, p. 2–32. [3] [4]
- England, R.W., 2000, Deep structure of North West Europe from deep seismic profiling: the link between basement tectonics and basin development, in Mohriak, W., and Talwani, M., eds., *Atlantic Rifts and Continental Margins*: American Geophysical Union, *Geophysical Monograph* 115, p. 57–83. [8]
- England, R.W., and Hobbs, R.W., 1997, The structure of the Rockall Trough imaged by deep seismic reflection profiling: *Journal of the Geological Society of London*, v. 154, p. 497–502, doi:10.1144/gsjgs.154.3.0497. [2] [8]
- England, R.W., McBride, J.H., and Hobbs, R.W., 2005, The role of Mesozoic rifting in the opening of the NE Atlantic: evidence from deep seismic profiling across the Faroe-Shetland Trough: *Journal of the Geological Society of London*, v. 162, p. 661–673, doi:10.1144/0016-764904-076. [2] [8] [9]
- English, W.A., ed., 1939, Seismograph prospecting for oil: American Institute Mining and Metallurgical Engineers, technical publication no. 1059, 29 p. [3]
- Epili, D., and Mereu, R.F., 1989, The GLIMPCE seismic experiment: Onshore refraction and wide-angle reflection observations from a fan line over the Lake Superior Midcontinent Rift System, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., *Properties and processes of earth's lower crust*: American Geophysical Union, *Geophysical Monograph* 51, p. 93–101. [8]
- Erslev, E.A., 2005, 2D Laramide geometries and kinematics of the Rocky Mountains, western U.S.A, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union *Geophysical Monograph* 154, p. 7–20. [9]
- EUGEMI Working Group, 1990, The European Geotraverse seismic refraction experiment of 1986 from Genova, Italy to Kiel, Germany, in Freeman, R., and Mueller, St., eds., *The European Geotraverse, Part 6: Tectonophysics*, v. 176, p. 43–57. [6] [8]
- EUGENO-S Working Group, 1988, Crustal structure and tectonic evolution of the transition between the Baltic Shield and the North German Caldonides (the EUGENO-S Project), in Freeman, R., Berthelsen, A., and Mueller, St., eds., *The European Geotraverse, Part 4: Tectonophysics*, v. 150, p. 253–348. [2] [8]
- EUROBRIDGE Seismic Working Group, 1999, Seismic velocity structure across the Fennoscandia-Sarmatia suture of the East European Craton beneath the EURO BRIDGE profile through Lithuania and Belarus: *Tectonophysics*, v. 314, p. 193–217, doi:10.1016/S0040-1951(99)00244-9. [2] [9]
- EUROBRIDGE'95 Seismic Working Group, 2001, *EUROBRIDGE'95: deep seismic profiling within the East European Craton*: *Tectonophysics*, v. 339, p. 153–175. [9]
- European Science Foundation, 1990, *European Geotraverse Project (EGT) 1983–1990*, final report: European Science Foundation, Strasbourg, 67 p. [2] [8]
- Evenchick, C.A., Gabrielse, H., and Snyder, D., 2005, Crustal structure and lithology of the northern Canadian Cordillera: alternative interpretations of SNORCLE seismic reflection lines 2a and 2b: *Canadian Journal of Earth Science*, v. 42, p. 1149–1161, doi:10.1139/e05-009. [9]
- Everingham, I.B., 1965, The crustal structure of the south-west of Western Australia: Bureau of Mineral Resources Australia, Report, 1965/1967. [2] [6]
- Evison, F.F., Ingham, C.E., and Orr, R.H., 1959, Thickness of the earth's crust in Antarctica: *Nature*, v. 183, 4657, p. 306–308, doi:10.1038/183306a0. [5]
- Ewing, G.N., Dainty, A.M., Blanchard, J.E., and Keen, M.J., 1966, Seismic studies on the eastern seabord of Canada: the Appalachian system, I: *Canadian Journal of Earth Science*, v. 3, p. 89–109. [6]
- Ewing, J.I., 1963a, Elementary theory of seismic refraction and reflection measurements, in Hill, M.N., ed., *The Sea* vol. 3, *The earth beneath the Sea*: New York–London, Interscience Publishers, p. 3–19. [2] [5] [6] [10]
- Ewing, J.I., 1963b, The mantle rocks, in Hill, M.N., ed., *The Sea* vol. 3, *The earth beneath the Sea*: New York–London, Interscience Publishers, p. 103–109. [5] [6]
- Ewing, J.I., 1969, Seismic model of the Atlantic Ocean, in Hart, P.J., ed., *The earth's crust and upper mantle*: American Geophysical Union, *Geophysical Monograph* 13, p. 220–225. [6] [10]
- Ewing, J.I., and Ewing, M., 1959, Seismic refraction measurements in the Atlantic Ocean basins, in *The Mediterranean Sea, on the Mid Atlantic Ridge and in the Norwegian Sea: Bulletin of the Geological Society of America*, v. 70, p. 291–318, doi:10.1130/0016-7606(1959)70[291:SMITAO]2.0.CO;2. [5]
- Ewing, J.I., and Ewing, M., 1961, A telemetering ocean-bottom seismograph: *Journal of Geophysical Research*, v. 66, p. 3863–3878, doi:10.1029/JZ066i011p03863. [3] [5]
- Ewing, J.I., and Ewing, M., 1966, Marine seismic studies: *Transactions, American Geophysical Union*, v. 47, no. 1, p. 276–279. [6]
- Ewing, J.I., and Ewing, M., 1970, General observations—seismic reflection, in Maxwell, A.E., ed., *The Sea, new concepts of ocean floor evolution*: New York, Wiley-Interscience, p. 53–84. [2] [5] [6] [10]
- Ewing, J.I., and Houtz, R., 1979, Acoustic stratigraphy and structure of the oceanic crust, in Talwani, M., Harrison, C.G., and Hayes, D.E., eds., *Deep drilling results in the Atlantic Ocean*: Washington, D.C., American Geophysical Union, p. 1–14. [7]
- Ewing, J.I., and Meyer, R.P., 1982, Rivera Ocean seismic experiment (ROSE) overview: *Journal of Geophysical Research*, v. 87, p. 8345–8357, doi:10.1029/JB087iB10p08345. [2] [7]
- Ewing, J.I., and Nafe, J.E., 1963, The unconsolidated sediments, in Hill, M.N., ed., *The Sea* vol. 3, *The earth beneath the Sea*: New York–London, Interscience Publishers, p. 73–84. [5]
- Ewing, J.I., and Purdy, G.M., 1982, Upper crustal velocity structure in the ROSE area of the East Pacific Rise: *Journal of Geophysical Research*, v. 87, p. 8397–8402, doi:10.1029/JB087iB10p08397. [7]
- Ewing, J.I., and Zauñere, R., 1964, Seismic profiling with a pneumatic sound source: *Journal of Geophysical Research*, v. 69, p. 4913–4915, doi:10.1029/JZ069i022p04913. [5] [6]
- Ewing, J.I., Antoine, J.W., and Ewing, M., 1960, Geophysical measurements in the western Caribbean Sea and in the Gulf of Mexico: *Journal of Geophysical Research*, v. 65, p. 4087–4126, doi:10.1029/JZ065i012p04087. [5] [6]
- Ewing, J.I., Ewing, M., Aitken, T., and Ludwig, W.J., 1968, North Pacific sediment layers measured by seismic profiling, in Knopoff, L., Drake, C.L., Hart, P.J., eds., *The crust and upper mantle of the Pacific area*: American Geophysical Union, *Geophysical Monograph* 12, p. 147–173. [6]
- Ewing, M., and Press, F., 1952, Crustal structure and surface wave dispersion, Part II: *Bulletin of the Seismological Society of America*, v. 42, p. 315–325. [5]

- Ewing, M., and Press, F., 1955, Geophysical contrasts between continents and oceanic basins, in Poldervaart, A., ed., Crust of the earth (a symposium): Geological Society of America Special Paper 62, p. 1–6. [4]
- Ewing, M., and Vine, 1938, Deep-sea measurements without wires and cables: Transactions, American Geophysical Union, part 1, p. 248–251. [3] [5]
- Ewing, M., Crary, A.P., and Lohse, J.M., 1934, Seismological observations on quarry blasting: Transactions, American Geophysical Union, 15 (Annual Meeting I), p. 91–94. [3]
- Ewing, M., Crary, A.P., and Rutherford, H.M., 1937, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part I: Bulletin of the Geological Society of America, v. 48, p. 753–802. [2] [3]
- Ewing, M., Woppard, G.P., and Vine, A.C., 1939, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part III: Bulletin of the Geological Society of America, v. 50, p. 257–296. [3] [5]
- Ewing, M., Woppard, G.P., and Vine, A.C., 1940, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part IV: Bulletin of the Geological Society of America, v. 51, p. 1821–1840. [3] [5]
- Ewing, M., Woppard, G.P., Vine, A.C., and Worzel, J.L., 1946, Recent results in submarine geophysics: Bulletin of the Geological Society of America, v. 57, p. 909–934. [3] [5]
- Ewing, M., Worzel, J.L., Hersey, J.B., Press, F., and Hamilton, G.R., 1950, Seismic refraction measurements in the Atlantic Ocean basin, Part I: Bulletin of the Seismological Society of America, v. 40, p. 233–242. [2] [4] [5]
- Ewing, M., Sutton, G.H., and Officer, C.B., 1952, Seismic refraction measurements in the Atlantic Ocean basin, Part IV: Bulletin of the Seismological Society of America, v. 42, p. 1353. [4] [5]
- Ewing, M., Sutton, G.H., and Officer, C.B., 1954, Seismic refraction measurements in the Atlantic Ocean, Part VI: Typical deep stations, North America Basin: Bulletin of the Seismological Society of America, v. 44, p. 21–38. [2] [4] [5]
- Ewing, M., Ludwig, W.J., and Ewing, J.I., 1964, Sediment distribution in the oceans: the Argentine basin: Journal of Geophysical Research, v. 69 (10), p. 2003–2032, doi:10.1029/JZ069i010p02003. [6]
- Ewing, M., Eittreim, S., Truchan, M., and Ewing, J.I., 1969, Sediment distribution in the Indian Ocean: Deep-Sea Research, v. 16, p. 231–248. [6]
- Ewing, M., Hawkins, L.V., and Ludwig, W.J., 1970, Crustal structure of the Coral Sea: Journal of Geophysical Research, v. 75, no. 11: p. 1953–1962, doi:10.1029/JB075i011p01953. [2] [6]
- Explosion Seismology Group Pyrenees, 1980, Seismic reconnaissance of the structure of the Pyrenees: Ann. Geophys., v. 36, p. 135–140. [7]
- Faber, S., 1978, Refractionsseismische Untersuchung der Lithosphäre unter den Britischen Inseln [Ph.D. thesis]: University of Karlsruhe, 132 p. [7]
- Faber, S., and Bamford, D., 1979, Lithospheric structural contrasts across the Caledonides of northern Britain, in Fuchs, K., and Bott, M.H.P., eds., Structure and compositional variations of the lithosphere and the asthenosphere: Tectonophysics, v. 56, p. 17–30. [2] [7] [8]
- Faber, S., and Bamford, D., 1981, Moho offset beneath northern Scotland: Geophysical Journal of the Royal Astronomical Society, v. 67, p. 661–672. [7]
- Fagot, M.G., 1986, Development of a deep-towed seismic system: a new capability for deep-ocean acoustic measurements, in Akal, T., and Berkson, J.M., eds., Ocean Seismo-Acoustics: New York, Plenum Press, p. 853–862. [8]
- Fahlquist, D.A., and Hersey, J.B., 1969, Seismic refraction measurements in the western Mediterranean Sea: Bulletin de l'Institut Oceanographique Monaco, v. 67, p. 1368. [6] [7]
- Faleide, J.I., Gudlaugsson, S.T., Eldholm, O., Myhre, A.M., and Jackson, H.R., 1991, Deep seismic transects across the sheared western Barents Sea–Svalbard continental margin: Tectonophysics, v. 189, p. 73–89, doi:10.1016/0040-1951(91)90488-E. [7] [8]
- Fanucci, F., and Morelli, D., 2003, The CROP profiles across the Western Mediterranean basins, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, v. 62, p. 166–170. [8]
- Fernández Viejo, G., and Clowes, R.M., 2003, Lithospheric structure beneath the Archaean Slave Province and Proterozoic Wopmay orogen, northwestern Canada, from a lithoprobe refraction/wide-angle reflection survey: Geophysical Journal International, v. 153, p. 1–19, doi:10.1046/j.1365-246X.2003.01807.x. [9]
- Fernández-Viejo, G., Gallart, J., Javier, J., Pulgar, A., Cordoba, D., and Danobeitia, J.J., 2000, Seismic signature of Variscan and Alpine tectonics in NW Iberia: Crustal structure of the Cantabrian Mountains and Duero basin: Journal of Geophysical Research, v. 105, p. 3001–3018, doi:10.1029/1999JB900321. [2] [9]
- Ferrucci, F., Gaudiosi, G., Hirn, A., and Nicolich, R., 1991, Ionian Basin and Calabrian Arc: new elements by DSS data: Tectonophysics, v. 195, p. 411–419, doi:10.1016/0040-1951(91)90223-F. [9]
- Fessenden, R.A., 1917, Methods and apparatus for locating ore bodies. U.S. Patent 1,240,328; September 18, 1917. [3]
- Finckh, P., and Frei, W., 1991, Seismic reflection profiling in the Swiss Rhône valley. Part 1: Seismic reflection field work, seismic processing and seismic results of the Roche-Voury and Turtmann and Agarn lines: Eclogae Geologicae Helvetiae, v. 84, p. 345–357. [8]
- Finckh, P., Ansorge, J., Mueller, St., and Sprecher, Chr., 1984, Deep crustal reflections from a Vibroseis survey in northern Switzerland: Tectonophysics, v. 109, p. 1–14, doi:10.1016/0040-1951(84)90167-7. [8]
- Finckh, P., Frei, W., Fuller, B., Johnson, R., Mueller, St., Smithson, S., and Sprecher, Chr., 1986, Detailed crustal structure from a seismic reflection survey in northern Switzerland, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 43–54. [2] [8]
- Finetti, I.R., 2003, The CROP profiles across the Mediterranean Sea (CROP MARE 1 and 2), in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, v. 62, p. 171–184. [9]
- Finetti, I., and Morelli, C., 1973, Geophysical exploration of the Mediterranean Sea: Bollettino di Geofisica Teorica e Applicata, v. 15, p. 263–271. [7]
- Finlayson, D.M., 1977, Seismic travel-times to east Papua from USSR nuclear explosions: BMR Journal of Australian Geology and Geophysics, v. 2, p. 209–216. [7]
- Finlayson, D.M., 1982, Seismic crustal structure of the Proterozoic North Australian craton between Tennant Creek and Mount Isa: Journal of Geophysical Research, v. 87, p. 10,569–10,578, doi:10.1029/JB087iB13p10569. [2] [7]
- Finlayson, D.M., 2010, A chronicle of deep seismic sounding profiling across the Australian continent and its margins, 1946–2006: D.M. Finlayson, Canberra, 255 p. [2] [5] [6] [7] [8] [9] [10]
- Finlayson, D.M., and Ansorge, J., 1984, Workshop proceedings: interpretation of seismic wave propagation in laterally heterogeneous structures: Bureau of Mineral Resources, Geology and Geophysics, report 258, Canberra, Australia, 207 p. [8] [10]
- Finlayson, D.M., and Collins, C.D.N., 1993, Lithospheric velocity structures under the southern New England Orogen: evidence for underplating at the Tasman Sea margin: Australian Journal of Earth Sciences, v. 40, p. 141–153, doi:10.1080/08120099308728071. [2] [8]
- Finlayson, D.M., and Cull, J.P., 1973, Time-term analysis of New Britain–New Ireland island arc structures: Geophysical Journal of the Royal Astronomical Society, v. 33, p. 265–280. [6]
- Finlayson, D.M., and Mathur, S.P., 1984, Seismic refraction and reflection features of the lithosphere in northern and eastern Australia, and continental growth: Annales Geophysiae, v. 2, no. 6, p. 711–722. [8]
- Finlayson, D.M., and McCracken, H.M., 1981, Crustal structure under the Sydney basin and Lachlan fold belt, determined from explosion seismic studies: Journal of the Geological Society of Australia, v. 28, p. 177–190. [7]
- Finlayson, D.M., Cull, J.P., Wiebenga, W.A., Furumoto, A.S., and Webb, J.P., 1972, New Britain–New Ireland crustal seismic refraction investigations 1967 and 1969: Geophysical Journal of the Royal Astronomical Society, v. 29, p. 245–253. [2] [6]
- Finlayson, D.M., Cull, J.P., and Drummond, B.J., 1974, Upper mantle structure from the Trans-Australia seismic refraction data: Journal of Geological Society Australia, v. 21, p. 447–458. [2] [7]
- Finlayson, D.M., Muirhead, K.J., Webb, J.P., Gibson, G., Furumoto, A.S., Cooke, R.J.S., and Russell, A.S., 1976, Seismic investigation of the Papuan Ultramafic belt: Geophysical Journal of the Royal Astronomical Society, v. 44, p. 45–60. [7]
- Finlayson, D.M., Drummond, B.J., Collins, C.D.N., and Connelly, J.B., 1977, Crustal structures in the region of the Papuan Ultramafic belt: Physics of the Earth and Planetary Interiors, v. 14, p. 13–29, doi:10.1016/0031-9201(77)90043-7. [2] [7]
- Finlayson, D.M., Prodehl, C., Collins, C.D.N., 1979, Explosion seismic profiles, and implications for crustal evolution, in southeastern Australia: BMR Journal of Australian Geology and Geophysics, v. 4, p. 243–252. [2] [7]

- Finlayson, D.M., Leven, J.H., and Wake-Dyster, K.D., 1989, Large-scale lenses in the lower crust under an intra-continental basin in eastern Australia, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., Properties and processes of earth's lower crust: American Geophysical Union, Geophysical Monograph 51, p. 3–16. [2] [8]
- Finlayson, D.M., Johnstone, D.W., Owen, A.J., and Wake-Dyster, K.D., 1996, Deep seismic images and the tectonic framework of early rifting in the Otway Basin, Australian southern margin: Tectonophysics, v. 264, p. 137–152, doi:10.1016/S0040-1951(96)00123-0. [2] [9]
- Finlayson, D.M., Collins, C.D.N., Lukaszyk, I., and Chudyk, E.C., 1998, A transect across Australia's southern margin in the Otway Basin region: crustal architecture and the nature of rifting from wide-angle seismic profiling, in Klempner, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: Tectonophysics, v. 288, p. 177–189. [2] [9]
- Finlayson, D.M., Korsch, R.J., Glen, R.A., Leven, J.H. and Johnstone, D.W., 2002, Seismic imaging and crustal architecture across the Lachlan Transverse Zone, a possible early cross-cutting feature of eastern Australia: Australian Journal of Earth Sciences, v. 49, p. 311–321, doi:10.1046/j.1440-0952.2002.00917.x. [2] [9]
- FIRE consortium, 2006, FIRE (Finnish reflection experiment), in Grad, M., Booth, D., and Tiira, T., eds., European Seismological Commission (ESC), Subcommission D—Crust and Upper Mantle Structure, Activity Report 2004–2006, [2] [10]
- Fisher, M.A., Brocher, T.M., Hyndman, R.D., Trehu, A.M., Weaver, C.S., Creager, K.C., Crozon, R.S., Parsons, T., Cooper, A.K., Mosher, D.C., Spence, G.D., Zelt, B.C., Hammer, P.T.C., ten Brink, U.S., Pratt, T.L., Miller, K.C., Childs, J.R., Cochrane, G.R., Chopra, S., and Walia, R., 1999, Seismic survey probes urban earthquake hazards in Pacific Northwest: Eos (Transactions, American Geophysical Union), v. 80, no. 2, p. 13–17, doi:10.1029/99EO00011. [9]
- Flecha, I., Palomeras, I., Carbonell, R., Simancas, F., Ayarza, P., Matas, J., Gonzales Lodeiro, F., and Perez-Estaun, A., 2009, Seismic imaging and modelling of the lithosphere of SW Iberia: Tectonophysics, v. 472, p. 148–157, doi:10.1016/j.tecto.2008.05.033. [10]
- Fliedner, M.M., and Klempner, S.L., 1999, Structure of an island-arc: Wide-angle seismic studies in the eastern Aleutian Islands, Alaska: Journal of Geophysical Research, v. 104, p. 10,667–10,694, doi:10.1029/98JB01499. [2] [9]
- Fliedner, M.M., Klempner, S.L., and Christensen, N.I., 2000, Three-dimensional seismic model of the Sierra Nevada arc, California, and its implications for crustal and upper mantle composition: Journal of Geophysical Research, v. 105, p. 10,899–10,921, doi:10.1029/2000JB900029. [9]
- Flueh, E.R., Milkereit, B., Meissner, R., Meyer, R.P., Ramirez, J.E., Quintero, J.d.C., and Udias, A., 1981, Seismic refraction observations in northwestern Colombia at latitude 5.5°N: Zentralblatt für Geologie und Paläontologie, Teil I: 1981, p. 231–242. [2] [7]
- Flueh, E.R., Mooney, W.D., Fuis, G.S., and Ambos, E.L., 1989, Crustal structure of the Chugach Mountains, southern Alaska: a study of peg-leg multiples from a low-velocity zone: Journal of Geophysical Research, v. 94, p. 16,023–16,035, doi:10.1029/JB094iB11p16023. [8]
- Flueh, E.R., Fisher, M., Scholl, D., Parsons, T., ten Brink, U., Klaeschen, D., Kukowski, N., Trehu, A., Childs, J., Bialas, J., and Vidal, N., 1997, Scientific teams analyze earthquake hazards of the Cascadia subduction zone: Eos (Transactions, American Geophysical Union), v. 78, p. 153–157, doi:10.1029/97EO00097. [9]
- Flueh, E.R., Vidal, N., Ranero, C.R., Hojka, A., von Huene, R., Bialas, J., Hinz, K., Cordoba, D., Danobeitia, J.J., and Zelt, C., 1998a, Seismic investigation of the continental margin off- and onshore Valparaíso, Chile, in Klempner, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: Tectonophysics, v. 288, p. 251–263. [2] [9]
- Flueh, E.R., Klaeschen, D., Weinrebe, W., and Reichert, C., 1998b, Investigation of small submarine volcanic cones at Ninetyeast Ridge by high resolution seismic investigations and bathymetry: Eos (Transactions, American Geophysical Union), v. 79, p. 872. [9]
- Flueh, E.R., Grevemeyer, I., and Reichert, C., 1999, Ocean site survey reveals anatomy of a hotspot track: Eos (Transactions, American Geophysical Union), v. 80, p. 77, doi:10.1029/99EO00052. [9]
- Forsyth, D.A., Berry, M.J., and Ellis, R.M., 1974, A refraction survey across the Canadian Cordillera at 54°N: Canadian Journal of Earth Sciences, v. 12, p. 539–557. [6]
- Forsyth, D.A., Morel-a'l'Huissier, Asudeh, I., and Green, A.G., 1986, Alpha Ridge and Iceland—products of the same plume?: Journal of Geodynamics, v. 6, p. 197–214, doi:10.1016/0264-3707(86)90039-6. [2] [8]
- Forsyth, D.A., Overton, A., Stephenson, R.A., Embry, A.F., Ricketts, B.D., and Asudeh, I., 1990, Delineation of sedimentary basins using seismic techniques on Canada's arctic continental margin, in Pinet, B., and Bois, C., eds., The potential of deep seismic profiling for hydrocarbon exploration: Editions Technip, Paris, p. 225–236. [2] [8]
- Förtsch, O., 1951, Analyse der seismischen Registrierungen der Grosssprengung bei Haslach im Schwarzwald am 28 April 1948: Jahrb. f. Bodenforschung, 66, p. 65–80. [4]
- Förtsch, O., and Schulze, G.A., 1948, Seismik der Fernsprengungen: Naturforschung und Medizin in Deutschland 1939–1946, 18, p. 44–51. [5]
- Fouqué, F., and Lévy, M., 1889, Expériences sur la vitesse de propagation des secousses: Mémoires de l'Académie des Sciences, Paris, v. 30, no. 2, p. 57–77. [3]
- Fowler, C.M.R., 1976, Crustal structure of the Mid-Atlantic ridge crest at 37°N: Geophysical Journal of the Royal Astronomical Society, v. 47, p. 459–491. [2] [7] [8]
- Fowler, C.M.R., 1978, The Mid-Atlantic Ridge: structure at 45°N: Geophysical Journal of the Royal Astronomical Society, v. 54, p. 167–183. [2] [7] [8]
- Fowler, C.M.R., 2005, The solid earth—an introduction to global geophysics: Cambridge University Press, 685 p. [2]
- Fowler, C.M.R., and Keen, C.E., 1979, Oceanic crustal structure—Mid-Atlantic Ridge at 45°N: Geophysical Journal of the Royal Astronomical Society, v. 56, p. 219–226. [7]
- Francis, T.J.G., and Raitt, R.W., 1967, Seismic refraction measurements in the southern Indian Ocean: Journal of Geophysical Research, v. 72, p. 3015–3041, doi:10.1029/JZ072i012p03015. [2] [6]
- Francis, T.J.G., and Shor, G.G., 1966, Seismic refraction measurements in the northwest Indian Ocean: Journal of Geophysical Research, v. 71, p. 427–449. [2] [6]
- Francis, T.J.G., Davies, D., and Hill, M.N., 1966, Crustal structure between Kenya and the Seychelles: Royal Society of London Philosophical Transactions, A259, p. 240–261. [2] [6]
- Franke, D., Neben, S., Schreckenberger, B., Schulze, A., Stiller, M., and Krawczyk, C.M., 2006, Crustal structure across the Colorado Basin, offshore Argentina: Geophysical Journal International, v. 165, p. 850–864, doi:10.1111/j.1365-246X.2006.02907.x. [2] [9]
- Franke, W., Bortfeld, R.K., Brix, M., Drozdowski, G., Dürbaum, H.J., Giese, P., Janoth, W., Jödicke, H., Reichert, C., Scherp, R., Schmoll, J., Thomas, R., Thünker, M., Weber, K., Wiesner, M.G., and Wong, H.K., 1990, Crustal structure of the Rhenish Massif: results of the deep seismic reflection lines DEKORP 2-North and 2-North-Q: Geologische Rundschau, v. 79, p. 523–566, doi:10.1007/BF01879201. [2] [8]
- Franke, W., Haak, V., Oncken, O., and Tanner, D., eds., 2000, Orogenic processes: quantification and modelling in the Variscan belt: Geological Society London Special Publication 179, 459 p. [2]
- Freeman, R., and Mueller, St., eds., 1992, A continent revealed—the European Geotraverse—Atlas of compiled data: Cambridge University Press, 13 maps and CD (EGT database). [2] [8] [10]
- Freeman, B., Klempner, S.L., and Hobbs, R.W., 1988, The deep structure of northern England and the Iapetus suture zone from BIRPS deep seismic reflection profiles: Journal of the Geological Society of London, v. 145, p. 727–740, doi:10.1144/gsjgs.145.5.0727. [2] [8]
- Freeman, R., Knorr, M., von Korhonen, H., Lund, C., and Muller, St., eds., 1989, The European Geotraverse, Part 5: The POLAR Profile: Tectonophysics, v. 162, p. 1–171. [8]
- Fuchs, K., 1968, The reflection of spherical waves from transition zones with arbitrary depth-dependent elastic moduli and density: Journal of Physics of the Earth, v. 16, Special Issue, p. 27–41. [6]
- Fuchs, K., 1969, On the properties of deep crustal reflectors: Zeitschrift für Geophysik, v. 35, p. 133–149. [6]
- Fuchs, K., 1975, Seismische Anisotropie des oberen Erdmantels und Intraplatten-Tektonik: Geologische Rundschau, v. 64, p. 700–716, doi:10.1007/BF01820691. [6] [7]
- Fuchs, K., 1977, Seismic anisotropy of the subcrustal lithosphere as evidence for dynamical processes in the upper mantle: Geophysical Journal of the Royal Astronomical Society, v. 49, p. 167–179. [6] [7]
- Fuchs, K., 1983, Recently formed elastic anisotropy and petrological models of the continental subcrustal lithosphere in southern Germany: Physics of the Earth and Planetary Interiors, v. 31, p. 93–118, doi:10.1016/0031-9201(83)90103-6. [7]
- Fuchs, K., and Müller, G., 1971, Computation of synthetic seismograms with the reflectivity method and comparison with observations: Geophysical

- Journal of the Royal Astronomical Society, v. 23, p. 417–433. [2] [6] [7] [8] [10]
- Fuchs, K., and Vinnik, L.P., 1982, Investigation of the subcrustal lithosphere and asthenosphere by controlled source seismic experiments on long-range profiles, in Palmason, G., ed., Continental and oceanic rifts: American Geophysical Union, Geodynamics Series, v. 8, p. 81–98. [7]
- Fuchs, K., Mueller, S., Peterschmitt, E., Rothé, J.P., Stein, A., Strobach, K., 1963a, Krustenstruktur der Westalpen nach refraktionsseismischen Messungen: Gerlands Beiträge zur Geophysik, v. 72, p. 149–169. [5] [6]
- Fuchs, K., Mueller, S., Peterschmitt, E., Rothé, J.P., Stein, A., Strobach, K., 1963b, Essais d'interprétation sismique. VI.A. Essai d'interprétation no. 1, in Closs, H., and Labrouste, Y., eds., Séismologie: Recherches séismologiques dans les Alpes occidentales au moyen de grandes explosions en 1956, 1958 et 1960: Mémoire Collectif, Année Géophysique Internationale, Centre National de la Recherche Scientifique, Série XII, Fasc. 2, p. 118–176. [5] [6]
- Fuchs, K., Vinnik, L.P., and Prodehl, C., 1987, Exploring heterogeneities of the continental mantle by high resolution seismic experiments, in Fuchs, K., and Froidevaux, C., eds., Composition, structure and dynamics of the lithosphere-asthenosphere system: American Geophysical Union, Geodynamics Series, v. 16, p. 137–154. [2] [7]
- Fuchs, K., Alther, R., Müller, B., and Prodehl, C., eds., 1997, Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics, v. 278, no. 1–4, 352 p. [2] [6] [9]
- Fuis, G.S., and Mooney, W.D., 1990, Lithospheric structure and tectonics from seismic-refraction and other data, in Wallace, G.E., ed., The San Andreas fault system, California: U.S. Geological Survey Professional Paper 1515, p. 207–236. [9] [10]
- Fuis, G.S., Mooney, W.D., Healy, J.H., McMechan, G.A., and Lutter, W.J., 1984, A seismic refraction survey of the Imperial Valley region, California: Journal of Geophysical Research, v. 89, p. 1165–1189, doi:10.1029/JB089iB02p01165. [2] [7] [9]
- Fuis, G.S., Zucca, J.J., Mooney, W.D., and Milkereit, B., 1987, A geologic interpretation of seismic-refraction results in northeastern California: Geological Society of America Bulletin, v. 98, p. 53–65, doi:10.1130/0016-7606(1987)98<53:AGIOSR>2.0.CO;2. [8]
- Fuis, G.S., Ambos, E.L., Mooney, W.D., Christensen, N.I., and Geist, E., 1991, Crustal structure of accreted terranes in southern Alaska, Chugach Mountains and Copper River basin, from seismic refraction results: Journal of Geophysical Research, v. 96, p. 4187–4227, doi:10.1029/90JB02316. [2] [8]
- Fuis, G.S., Okaya, D.A., Clayton, R.W., Lutter, W.J., Ryberg, T., Brocher, T.M., Henley, T.M., Benthiem, M.L., Davis, P.M., Mori, J., Catchings, R.D., ten Brink, U.S., Kohler, M.D., Klitgord, K.D., and Bohannon, R.G., 1996, Images of crust beneath southern California will aid study of earthquakes and their effects: Eos (Transactions, American Geophysical Union), v. 77, p. 173, 176. [2] [9]
- Fuis, G.S., Murphy, J.M., Lutter, W.J., Moore, T.E., and Bird, K.J., 1997, Deep seismic structure and tectonics of northern Alaska: crustal-scale duplexing with deformation extending into the upper mantle: Journal of Geophysical Research, v. 102, p. 20,873–20,896, doi:10.1029/96JB03959. [2] [8] [9]
- Fuis, G.S., Murphy, J.M., Okaya, D.A., Clayton, R.W., Davis, P.M., Thygesen, K., Baher, S.A., Ryberg, T., Benthiem, M.L., Simila, G., Perron J.T., Yong, A.K., Reusser, L., Lutter, W.J., Kaip, G., Fort, M.D., Asudeh, I., Sell, R., Vanschaak, J.R., Criley, E.E., Kaderabek, R., Kohler, W.M., and Magnuski, N.H., 2001a, Report for borehole explosion data acquired in the 1999 Los Angeles Region Seismic Experiment (LARSE II), southern California: Part 1, description of the survey: U.S. Geological Survey Open-File Report 01-408, 74 p. [9]
- Fuis, G.S., Ryberg, T., Godfrey, N.J., Okaya, D.A., and Murphy, J.M., 2001b, Crustal structure and tectonics from the Los Angeles basin to the Mojave Desert, southern California: Geology, v. 29, p. 15–18, doi:10.1130/0091-7613(2001)029<0015:CSATFT>2.0.CO;2. [2] [9]
- Fuis, G.S., Clayton, R.W., Davis, P.M., Ryberg, T., Lutter, W.J., Okaya, D.A., Hauksson, E., Prodehl, C., Murphy, J.M., Benthiem, M.L., Baher, S.A., Kohler, M.D., Thygesen, K., Simila, G., and Keller, G.R., 2003, Fault systems of the 1971 San Fernando and 1994 Northridge earthquakes, southern California: Relocated aftershocks and seismic images from LARSE II: Geology, v. 31, p. 171–174, doi:10.1130/0091-7613(2003)031<0171:FSOTSF>2.0.CO;2. [9]
- Fuis, G.S., Moore, T.E., Plafker, G., Brocher, T.M., Fisher, M.A., Mooney, W.D., Nokleberg, W.J., Page, R.A., Beaudoin, B.C., Christensen, N.I., Levander, A.R., Lutter, W.J., Saltus, R.W., and Ruppert, N.A., 2008, Trans-Alaska Crustal Transect and continental evolution involving subduction underplating and synchronous foreland thrusting: Geology, v. 36, p. 267–270, doi:10.1130/G24257A.1. [9]
- Funck, T., Hopper, J.R., Larsen, H.C., Louden, K.E., Tucholke, B.E., and Holbrook, W.S., 2003, Crustal structure of the ocean-continent transition at Flemish Cap: seismic refraction results: Journal of Geophysical Research, v. 108 (B11), 2531, doi:10.1029/2003JB002434. [2] [8] [9]
- Furumoto, A.S., Wiebenga, W.A., Webb, J.P., and Sutton, G.H., 1973, Crustal structure of the Hawaiian archipelago, northern Melanesia, and the central Pacific basin by seismic refraction methods, in Mueller, S., ed., The structure of the earth's crust, based on seismic data: Tectonophysics, v. 20, p. 153–164. [2] [6]
- Gajewski, D., 1989, Compressional and shear-wave velocity models of the Schwarzwald derived from seismic refraction data, in Emmermann, R., and Wohlenberg, J., eds., The continental deep drilling program (KTB): Berlin, Heidelberg, New York, Springer Verlag, p. 363–383. [8]
- Gajewski, D., and Prodehl, C., 1985, Crustal structure beneath the Swabian Jura, SW Germany, from seismic refraction investigations: Journal of Geophysics, v. 56, p. 69–80. [7] [8]
- Gajewski, D., and Prodehl, C., 1987, Seismic refraction investigation of the Black Forest, in Freeman, R., and Mueller, St., eds., The European Geotraverse, Part 3: Tectonophysics, v. 142, p. 27–48. [2] [8]
- Gajewski, D., and Pšenčík, I., 1987, Computation of high-frequency seismic wavefields in 3-D laterally inhomogeneous anisotropic media: Geophysical Journal of the Royal Astronomical Society, v. 91, p. 383–411. [8]
- Gajewski, D., and Pšenčík, I., 1988, Ray synthetic seismograms for a 3-D anisotropic lithospheric structure: Physics of the Earth and Planetary Interiors, v. 51, p. 1–23, doi:10.1016/0031-9201(88)90017-9. [8]
- Gajewski, D., Holbrook, W.S., and Prodehl, C., 1987, A three-dimensional crustal model of southwest Germany derived from seismic refraction data, in Freeman, R., and Mueller, St., eds., The European Geotraverse, Part 3: Tectonophysics, v. 142, p. 49–70. [2] [8]
- Gajewski, D., Prodehl, C., Ritter, J., and Feddersen, J., 1988, A compilation of data from the 1984 seismic-refraction experiment in SW-Germany: Open-File Report 88-1, Geophysics Institute, University of Karlsruhe, 110 p. [8]
- Gajewski, D., Prodehl, C., and Zeis, S., 1989, A compilation of data from the Wildflecken-1982 seismic-refraction experiment in southern Germany: Open-File Report 89-1, Geophysical Institute, University of Karlsruhe, 41 p. [8]
- Gajewski, D., Schulte, A., Riaroh, D., and Thybo, H., 1994, Deep seismic sounding in the Turkana depression, northern Kenya rift, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., Crustal and upper mantle structure of the Kenya rift: Tectonophysics, v. 236, p. 165–178. [9]
- Galitzin, Fürst B., 1914, Vorlesungen über Seismometrie (ed. by O. Hecker): Teubner, Leipzig-Berlin, 538 p. [3]
- Gallart, J., Daignieres, M., Banda, E., Surinach, E., and Hirn, A., 1980, The eastern Pyrenean domain: lateral variations at crust-mantle level: Annales de Géophysique, v. 36, p. 141–158. [2] [7]
- Gallart, J., Rojas, H., Díaz, J., and Danobeitia, J.J., 1990, Features of deep crustal structure and transition offshore-onshore at the Iberian flank of the Valencia Trough (Western Mediterranean): Journal of Geodynamics, v. 12, p. 233–252, doi:10.1016/0264-3707(90)90009-J. [8]
- Gallart, J., Vidal, N., Danobeitia, J.J., and the ESCI-Valencia Trough Working Group, 1994, Lateral variations in the deep crustal structure at the Iberian margin of the Valencia trough imaged from seismic reflection methods: Tectonophysics, v. 232, p. 59–75, doi:10.1016/0040-1951(94)90076-0. [2] [9]
- Gallart, J., Vidal, N., and Danobeitia, J.J., 1995a, Multichannel seismic image of the crustal thinning at the NE Iberian margin combining normal and wide-angle reflection data: Geophysics Research Letters, v. 22, no. 4, p. 489–492, doi:10.1029/94GL03272. [9]
- Gallart, J., Díaz, J., Vidal, N., and Danobeitia, J.J., 1995b, The base of the crust in the Betics-Alboran Sea transition: evidences of an abrupt structural variation from wide-angle ESCI data: Acta Geológica Hispanica, v. 8, p. 519–528. [9]
- Gallart, J., Díaz, J., Nercessian, A., Mauffret, A., and Dos Reis, T., 2001, The eastern end of the Pyrenees: seismic features at the transition to the NW Mediterranean: Geophysical Research Letters, v. 28, no. 11, p. 2277–2280, doi:10.1029/2000GL012581. [9]
- Galperin, E., and Kosminskaya, I.P., 1958, Characteristics of the methods of deep seismic sounding on the sea: Bulletin of the Academy of Science, USSR, Geophysics Series 7, p. 475–483. [4] [5]

- Galperin, E., and Kosminskaya, I.P., eds., 1964, Structure of the earth's crust in the transition zone between Asia and the Pacific: Moscow, Nauka (in Russian). [2] [5] [6]
- Galv  , A., Hirn, A., Mei, J., Gallart, J., de Voogd, B., Lepine, J.-C., D  az, J., Youxue, W., and Hui, Q., 2002, Modes of raising northeastern Tibet probed by explosion seismology: *Earth and Planetary Science Letters*, v. 203, p. 35–43, doi:10.1016/S0012-821X(02)00863-4. [2] [9]
- Galv  , A., Jiang, M., Hirn, A., Sapin, M., Laigle, M., de Voogd, B., Gallart, J., and Qian, H., 2006, Explosion seismic P and S velocity and attenuation constraints on the lower crust of the North-Central Tibetan Plateau, and comparison with South Tibet-Himalayas: implications on composition, mineralogy, temperatures and tectonic evolution: *Tectonophysics*, v. 412 (3–4), p. 141–157, doi:10.1016/j.tecto.2005.09.010. [9]
- Gamburtsev, 1952, The seismic deep sounding of the earth's crust (in Russian): *Doklady Nauk SSSR*, v. 87 (6), p. 943–946. [2] [4]
- Ganchin, Y.V., Smithson, S.B., Morozov, I.B., Smythe, D.K., Garipov, V.Z., Karaev, N.A., and Kristofferson, Y., 1998, Seismic studies around the Kola Superdeep Borehole, Russia, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 1–16. [2] [9]
- Gane, P.G., Hales, A.L., and Oliver, H.O., 1946, A seismic investigation of the Witwatersrand earth tremors: *Bulletin of the Seismological Society of America*, v. 36, p. 49–80. [4]
- Gao, R., Cheng, X.-Z., and Ding, Q., 1995, Preliminary geodynamic model of Golmud-Ejin Qi geoscience transect: *Acta Geophysica Sinica*, v. 38, p. 3–14. [9]
- Gao, R., Huang, D., Lu, D., et al., 2000, Deep seismic reflection profile across the juncture zone between the Tarim basin and the West Kunlun Mountains: *Chinese Science Bulletin*, v. 45, p. 2281–2286, doi:10.1007/BF02886369. [9]
- Garcia-Duenas, V., Banda, E., Torne, M., Cordoba, D., and ESCI-Beticas Working Group, 1994, A deep seismic reflection survey across the Betic Chain (southern Spain): first results: *Tectonophysics*, v. 232, p. 77–89, doi:10.1016/0040-1951(94)90077-9. [9]
- Garrick, R.A., 1968, A reinterpretation of the Wellington crustal refraction profile: *New Zealand Journal of Geology and Geophysics*, v. 11, p. 1280–1294. [5]
- Gaskell, T.F., and Swallow, J.C., 1951, Seismic refraction experiments in the North Atlantic: *Nature*, v. 167, 4253, p. 723–724, doi:10.1038/167723a0. [2] [4] [5]
- Gaskell, T.F., and Swallow, J.C., 1952, Seismic refraction experiments in the Pacific: *Nature*, v. 170, 4337, p. 1010–1012, doi:10.1038/1701010a0. [2] [5]
- Gaskell, T.F., and Swallow, J.C., 1953, Seismic refraction experiments in the Indian Ocean and the Mediterranean Sea: *Nature*, v. 172, p. 535, doi:10.1038/172535b0. [2] [5]
- Gaskell, T.F., Hill, M.N., and Swallow, J.C., 1958, Seismic measurements made by H.M.S. *Challenger* in the Atlantic, Pacific and Indian Oceans and in the Mediterranean Sea, 1950–1953: *Philosophical Transactions of the Royal Society of London*, A251, p. 23–83, doi:10.1098/rsta.1958.0008. [5] [6]
- Gaulier, J.M., LePichon, X., Lyberis, N., Avedik, F., Geli, L., Moretti, I., Deschamps, A., and Hafez, S., 1988, Seismic study of the crust of the northern Red Sea and Gulf of Suez, in LePichon, X., and Cochran, J.R., eds., *The Gulf of Suez and Red Sea rifting: Tectonophysics*, v. 153, p. 55–88. [2] [8]
- Gebrande, H., 1976, A seismic ray-tracing method for two-dimensional inhomogeneous media, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—Data and Results*: Berlin-Heidelberg-New York, Springer, p. 162–167. [7] [8]
- Gebrande, H., Miller, H., and Einarsen, P., 1980, Seismic structure along RRISP-profile I, in Jacoby, W., Bj  rnsson, A., and M  ller, D., eds., *Iceland: Evolution, active tectonic, and structure: Journal of Geophysics*, v. 47, p. 239–249. [7]
- Gebrande, H., Bopp, M., Neurieder, P., and Schmidt, T., 1989, Crustal structure in the surroundings of the KTB drill site as derived from refraction and wide-angle seismic observations, in Emmermann, R., and Wohlenberg, J., eds., *The German continental deep drilling program (KTB)—Site-selection studies in the Oberpfalz and Schwarzwald*: Springer, Berlin-Heidelberg, p. 151–176. [2] [8]
- Gebrande, H., Bopp, M., Meichelb  ck, M., and Neurieder, P., 1991, 3-D wide-angle investigations in the KTB surroundings as part of the “Integrated Seismics Oberpfalz 1989 (ISO89),” first results, in Meissner, R., Brown, L., D  rbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections: American Geophysical Union, Geodynamics Series*, v. 22, p. 147–160. [8]
- Gebrande, H., Castellarin, A., Lueschen, E., Millahn, K., Neubauer, F., and Nicolich, R., 2006, TRANSALP—a transect through a young collisional orogen: *Tectonophysics*, v. 414, p. 1–282, doi:10.1016/j.tecto.2005.10.030. [2] [9] [10]
- Gee, D.G., and Stephenson, R.A., editors, 2006, *European lithosphere dynamics: Geological Society of London, Memoirs*, v. 32, 662 p. [2] [9] [10]
- Gee, D.G., and Zeyen, H.J., eds., 1996, *EUROPROBE—Lithospheric Dynamics: origin and evolution of continents: EUROPROBE Secretariat, Uppsala University*, 138 p. [2]
- Gerdom, M., Trehu, A.M., Flueh, E.R., and Klaeschen, D., 2000, The continental margin off Oregon from seismic investigations: *Tectonophysics*, v. 329, p. 79–97, doi:10.1016/S0040-1951(00)00190-6. [9]
- Gerecke, F., 1933, Wellentypen, Strahlengang und Tiefenberechnung bei seismischen Eisdickenmessungen auf dem Rhonegletscher [Ph.D. thesis]: University of Goettingen, Germany, 28 p. [3]
- German Research Group for Explosion Seismology, 1964, Crustal structure in Western Germany: *Zeitschrift f  r Geophysik*, v. 30, p. 209–234. [6]
- Gettings, M.E., Blank, H.R., Mooney, W.D., and Healy, J.H., 1986, Crustal structure of southwestern Saudi Arabia: *Journal of Geophysical Research*, v. 91, p. 6491–6512, doi:10.1029/JB091iB06p06491. [7] [8]
- Gettrust, J.F., Furukawa, K., and Kempner, W.B., 1982, Variation in young oceanic crust and upper mantle: *Journal of Geophysical Research*, v. 87, p. 8435–8445, doi:10.1029/JB087iB10p08435. [7]
- Gibbs, A.K., Payne, B., Setzer, T., Brown, L.D., Oliver, J.E., and Kaufman, S., 1984, Seismic reflection study of the Precambrian crust of central Minnesota: *Geological Society of America Bulletin*, v. 95, p. 280–294, doi:10.1130/0016-7606(1984)95<280:SSOTPC>2.0.CO;2. [2] [7]
- Gibbs, J.F., 1972, unpublished interpretation (see Warren et al., 1972). [6]
- Gibbs, J.F., and Roller, J.C., 1966, Crustal structure determined by seismic refraction measurements between the Nevada test site and Ludlow, California, in *Geological Survey Research 1966*, U.S. Geological Survey Professional Paper, 550-D, p. D125–D131. [6]
- Giese, P., 1968a, Versuch einer Gliederung der Erdkruste im n  rdlichen Alpenvorland, in *den Ostalpen und in Teilen der Westalpen mit Hilfe charakteristischer Refraktions-Laufzeit-Kurven sowie einer geologischen Deutung: Geophys. Abh. Inst. Meteorol. u. Geophys., FU Berlin* 1 (2), p. 202 p. [4] [6]
- Giese, P., 1968b, Die Struktur der Erdkruste im Bereich der Ivrea-Zone: Schweizerische Mineralogische und Petrographische Mitteilungen, v. 48, p. 261–284. [6]
- Giese, P., 1976a, Problems and tasks of data generalization, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 137–145. [2] [6]
- Giese, P., 1976b, Depth calculation, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 146–161. [6] [10]
- Giese, P., 1976c, Results of the generalized interpretation of the deep-seismic sounding data, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 201–214. [6]
- Giese, P., 1985, The structure of the upper lithosphere between the Ligurian Sea and the Southern Alps, in Galson, D.A., and Mueller, S., eds., *Proceedings of the Second Workshop on the Geotraverse Project, the southern segment: European Science Foundation, Strasbourg*, p. 143–153. [8]
- Giese, P., and Morelli, C., 1973, Crustal structure of Italy—Some general features from explosion seismology: *Bulletin of the Geological Society of Greece*, v. 10, p. 94–98. [6]
- Giese, P., and Prodehl, C., 1976, Main features of crustal structure in the Alps, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 347–375. [2] [6]
- Giese, P., and Sch  tte, K.-G., 1980, Resultados das medias de sismica de refrac  o a este da Serra do Espinhaco, M.G., Brazil, in Zeil, W., ed., *Proyectos de la Deutsche Forschungsgemeinschaft, Grupo de Trabajo: Investigacion Geoscientifica en Latinoamerica: Deutsche Forschungsgemeinschaft, Bonn, Germany*, p. 44–50. [7]
- Giese, P., and Stein, A., 1971, An attempt of a generalized interpretation of deep-sounding measurements in the area between the North Sea and the Alps: *Zeitschrift f  r Geophysik*, v. 37, p. 237–272. [6]

- Giese, P., Prodehl, C., and Behnke, C., 1967, Ergebnisse refraktionsseismischer Messungen 1965 zwischen dem Französischen Zentralmassiv und den Westalpen: *Zeitschrift für Geophysik*, v. 33, p. 215–261. [2] [6]
- Giese, P., Morelli, C., Prodehl, C., and Vecchia, O., 1971, Crust and upper mantle beneath the southern zone of Ivrea: Proceedings of the 12th General Assembly of the European Seismological Commission (Luxembourg 1970), Obs. Royal de Belgique, Comm. Sér. A-no 13, Séries Geophysics 101, p. 182–183. [6]
- Giese, P., Morelli, C., and Steinmetz, L., 1973, Main features of crustal structure in western and central Europe based on data of explosion seismology, in Mueller, St., ed., *The structure of the earth's crust based on seismic data*: *Tectonophysics*, v. 20, p. 367–379. [2] [6] [7] [9]
- Giese, P., Prodehl, C., and Stein, A., eds., 1976a, *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, 429 p. [2] [4] [5] [6] [10]
- Giese, P., Hinz, E., Prodehl, C., Schröder, H., and Stein, A., 1976b, Description of profiles, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 73–112. [6]
- Giese, P., Makris, J., Akashe, B., Röwer, P., Letz, H., and Mostaanpour, M., 1984, The crustal structure in southern Iran derived from seismic explosion data: *Neues Jahrbuch für Geologie und Paläontologie Abhandlungen*, v. 168, p. 230–243. [2] [7]
- Giese, P., Reutter, K.-J., Jacobshagen, V., and Nicolich, R., 1982, Explosion seismic crustal studies in the Alpine-Mediterranean region and their implications to tectonic processes, in Berckhemer, H., and Hsü, K., eds., *Alpine-Mediterranean geodynamics*: Geodynamics Series, American Geophysical Union, 7, p. 39–73. [8]
- Giese, P., Scheuber, E., Schilling, F., Schmitz, M., and Wigger, P., 1999, Crustal thickening processes in the Central Andes and the different natures of the Moho-discontinuity, in Reutter, K.-J., ed., *Central Andean deformation*: Journal of South American Earth Science, v. 12, p. 201–220. [2] [9]
- Ginzburg, A., Makris, J., Fuchs, K., Prodehl, C., Kaminski, W., and Amitai, U., 1979a, A seismic study of the crust and upper mantle of the Jordan–Dead Sea rift and their transition towards the Mediterranean Sea: *Journal of Geophysical Research*, v. 84, p. 1569–1582, doi:10.1029/JB084iB04p01569. [2] [7] [9]
- Ginzburg, A., Makris, J., Fuchs, K., Perathoner, B., and Prodehl, C., 1979b, Detailed structure of the crust and upper mantle along the Jordan–Dead Sea rift: *Journal of Geophysical Research*, v. 84, p. 5605–5612, doi:10.1029/JB084iB10p05605. [7] [8]
- Ginzburg, A., Mooney, W.D., Walter, A.W., Lutter, W.J., and Helay, J.H., 1983, Deep structure of northern Mississippi embayment: *American Association of Petroleum Geologists Bulletin*, v. 67, p. 2031–2046. [7]
- Ginzburg, A., Makris, J., and Nicolich, R., 1986, European Geotraverse: a seismic refraction profile across the Ligurian Sea, in Galson, D.A., and Mueller, St., eds., *The European Geotraverse, Part 1: Tectonophysics*, v. 126, p. 85–97. [8]
- Gish, D.M., Keller, G.R., and Sbar, M.L., 1981, A refraction study of deep crustal structure in the Basin and Range; Colorado Plateau of eastern Arizona: *Journal of Geophysical Research*, v. 86, p. 6029–6038, doi:10.1029/JB086iB07p06029. [7]
- Given, J.W., and Helmberger, D.V., 1983, Inversion of SH body wave seismograms for the shear velocity of the western U.S.: *Eos (Transactions, American Geophysical Union)*, v. 64, p. 763. [8]
- Glen, R.A., Korsch, R.J., Direen, N.G., Jones, L.E.A., Johnstone, D.W., Lawrie, K.C., Finlayson, D.M., and Shaw, R.D., 2002, Crustal structure of the Ordovician Macquarie Arc, Eastern Lachlan Orogen, based on seismic reflection profiling: *Australian Journal of Earth Sciences*, v. 49, p. 323–348, doi:10.1046/j.1440-0952.2002.00925.x. [2] [9]
- Glocke, A., and Meissner, R., 1976, Near-vertical reflections recorded at the wide-angle profile in the Rhenish Massif, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 252–256. [6]
- Gobert, B., Hirn, A., and Steinmetz, L., 1972, Shots of profile II, recordd on land, north of the Pyrenees, in Leenhardt, O., Gobert, B., Hinz, K., Hirn, A., Hirschleber, H., Hsü, H.J., Refubatti, A., Rudant, J.-P., Rudloff, R., Ryan, W.B.F., Snoek, M., and Steinmetz, L., eds., Results of the Anna cruise—three north-south seismic profiles through the western Mediterranean Sea: *Bulletin du Centre Recherches Pau–SNPA*, v. 6, p. 373–381. [7]
- Godfrey, N.J., Beaudoin, B.C., Lendl, C., Meltzer, A., and Luetgert, J.H., 1995, Data report for the 1993 Mendocino Triple Junction seismic experiment: U.S. Geological Survey Open-File Report, 95-275, 83 p. [9]
- Godfrey, N.J., Meltzer, A.S., Klempner, S.L., Trebu, A.M., Leitner, B., Clarke, Jr., S.H., and Ondrus, A., 1998, Evolution of the Gorda Escarpment, San Andreas fault and Mendocino triple junction from multichannel seismic data collected across the northern Vizcaino block, offshore northern California: *Journal of Geophysical Research*, v. 103, p. 23,813–23,825, doi:10.1029/98JB02138. [9]
- Godfrey, N.J., Davey, F., Stern, T.A., and Okaya, D., 2001, Crustal structure and thermal anomalies of the Dunedin Region, South Island, New Zealand: *Journal of Geophysical Research*, v. 106, p. 30,835–30,848. [9]
- Gohl, K., and Smithson, S.B., 1993, Structure of the Archean crust and passive margin of southwest Greenland from seismic wide-angle data: *Journal of Geophysical Research*, v. 98, p. 6623–6638, doi:10.1029/93JB00016. [8]
- Gohl, K., Smithson, S.B., and Kristoffersen, Y., 1991, The structure of the Archean crust in SW Greenland from seismic wide-angle data: a preliminary analysis, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: American Geophysical Union, Geodynamics Series, v. 22, p. 53–57. [8]
- Gohn, G.S., ed., 1983, Studies related to the Charleston, South Carolina, earthquake of 1886—tectonics and seismicity: U.S. Geological Survey Professional Paper 1313. [8]
- Goldflam, P., Weigel, W., and Loncarevic, B.D., 1980, Seismic structure along RRISP-profile I on the southeast flank of the Reykjanes Ridge, in Jacoby, W., Björnsson, A., and Möller, D., eds., *Iceland: Evolution, active tectonic, and structure*: *Journal of Geophysics*, v. 47, p. 250–260. [7]
- Goldman, M.R., Fuis, G.S., Luetgert, J.H., and Geddes, D.J., 1992, Data report for the TACT 1987 seismic refraction survey: Fairbanks North and Olnes deployments: Menlo Park, California, U.S. Geological Survey Open-File Report 92-196, 98 p. [8]
- Goldschmidt-Rokita, A., Hansch, K.F., Hirschleber, H.B., Iwasaki, T., Kanazawa, T., Shimamura, H., and Sellevoll, M.A., 1994, The ocean/continent transition along a profile through the Lofoten basin, Northern Norway: *Marine Geophysical Research*, v. 16, p. 201–224, doi:10.1007/BF01237514. [8]
- Goleby, B.R., Drummond, B.J., Korsch, R.J., Willcox, J.B., O'Brien, G.W., and Wake-Dyster, K.D., 1994, Review of recent results from continental deep seismic profiling in Australia: *Tectonophysics*, v. 232, p. 1–12, doi:10.1016/0040-1951(94)90072-8. [2] [9]
- Goleby, B.R., Korsch, R.J., Fomin, T., Bell, B., Nicoll, M.G., Drummond, B.J. and Owen, A.J., 2002, A preliminary 3D geological model of the Kalgoorlie region, Yilgarn Craton, Western Australia based on deep seismic reflection and potential field data: *Australian Journal of Earth Sciences*, v. 49, p. 917–933, doi:10.1046/j.1440-0952.2002.00967.x. [2] [9]
- Goleby, B.R., Blewett, R.S., Korsch, R.J., Champion, D.C., Cassidy, K.F., Jones, L.E.A., Groenewald, P.B., and Henson, P., 2004, Deep seismic reflection profiling in the Archaean northeastern Yilgarn Craton, Western Australia: implications for crustal architecture and mineral potential: *Tectonophysics*, v. 388, p. 119–133, doi:10.1016/j.tecto.2004.04.032. [2] [9] [10]
- Goleby, B.R., Blewett, R.S., Fomin, T., Fishwick, S., Reading, A.M., Henson, P.A., Kennett, B.L.N., Champion, D.C., Jones, L., Drummond, B.J., and Nicoll, M., 2006, An integrated multi-scale 3D seismic model of the Archaean Yilgarn Craton, Australia: *Tectonophysics*, v. 420, p. 75–90, doi:10.1016/j.tecto.2006.01.028. [9] [10]
- Gomes, P.O., Gomes, B.S., Palma, J.J.C., Jinno, K., and de Souza, J.M., 2000, Ocean-continent transition and tectonic framework of the oceanic crust at the continental margin off NE Brazil: Results of LEPLAC project, in Mohriak, W., and Talwani, M., eds., *Atlantic Riffs and Continental Margins*: American Geophysical Union, Geophysical Monograph 115, p. 261–291. [2] [9]
- Goncharov, A.G., Lizinsky, M.D., Collins, C.D.N., Kalnin, K.A., Fomin, T.N., Drummond, B.J., Goleby, B.R., Platonenkova, L.N., 1998, Intracrustal “Seismic isostasy” in the Baltic Shield and Australian Precambrian cratons from deep seismic profiles and the Kola Superdeep bore hole data, in Braun, J., Dooley, J.C., Goleby, B.R., van der Hilst, R.D., and Klootwijk, C.T., eds., *Structure and evolution of the Australian continent*: American Geophysical Union, Geodynamics Series, v. 26, p. 119–138. [9]
- Gorini, C., Le Marrec, A., and Mauffret, A., 1993, Contribution to the structural and sedimentary history of the Gulf of Lions (Western Mediterranean),

- from the ECORS profiles, industrial seismic profiles and well data: *Bulletin de la Société Géologique de France*, v. 164, p. 353–363. [8]
- Gorman, A.R., Clowes, R.M., Ellis, R.M., Henstock, T.J., Spence, G.D., Keller, G.R., Levander, A., Snelson, C.M., Burianyk, M.J.A., Kanasewich, E.R., Asudeh, I., Hajnal, Z., and Miller, K.C., 2002, Deep Probe: imaging the roots of western North America: *Canadian Journal of Earth Science*, v. 39, p. 375–398, doi:10.1139/e01-064. [2] [9]
- Goslin, J., Recq, M., and Schlich, R., 1981, Structure profonde du plateau de Madagascar: relations avec le plateau de Crozet: *Tectonophysics*, v. 76, p. 75–97, doi:10.1016/0040-1951(81)90254-7. [2] [7]
- Grad M., and Tripolsky A.A., 1995, Crustal structure from P and S waves and petrological models of the Ukrainian shield: *Tectonophysics*, v. 250, 89–112, doi:10.1016/0040-1951(95)00045-X. [7]
- Grad M., Shiobara, H., Janik, T., Gutcher, A., and Shimamura, H., 1997, Crustal model of the Bransfield Rift, West Antarctica, from detailed OBS refraction experiments: *Geophysical Journal International*, v. 130, p. 506–518, doi:10.1111/j.1365-246X.1997.tb05665.x. [2] [9]
- Grad M., Keller G.R., Thybo, H., Gutcher A., and POLONAISE Working Group, 2002, Lower lithosphere structure beneath the Trans-European Suture Zone from POLONAISE'97 seismic profiles: *Tectonophysics*, v. 360, p. 153–168, doi:10.1016/S0040-1951(02)00350-5. [9]
- Grad M., Jensen, S.L., Keller G.R., Gutcher A., Thybo, H., Janik, T., Tiira, T., Yliniemi, J., Luoto, U., Motuza, G., Nasedkin, V., Czuba, W., Gaczynski, E., Sroda, P., Miller, K.C., Wilde-Piorko, M., Komminaho, K., Jacyna, J., and Korabliova, L., 2003, Crustal structure of the Trans-European Suture Zone region along POLONAISE'97 seismic profile P4: *Journal of Geophysical Research*, v. 108, 2541, doi:10.1029/2003JB002426. [9]
- Grad M., Gutcher A., Keller G.R., Janik, T., Hegedüs E., Vozar, J., Slaczka, A., Tiira, T., and Yliniemi, J., 2006, Lithospheric structure beneath trans-Carpathian transect from Precambrian platform to Pannonian basin: CELEBRATION 2000 seismic profile CEL05: *Journal of Geophysical Research*, v. 111, B03301, doi:10.1029/2005JB003647. [9]
- Grad M., Gutcher A., Mazur, S., Keller, G.R., Špičák, A., Hrubcová, P., Geissler, W.H., and SUDETES 2003 Working Group, 2008, Lithospheric structure of the Bohemian Massif and adjacent Variscan belt in central Europe based on Profile S01 from the SUDETES 2003 experiment: *Journal of Geophysical Research*, v. 113, B10304, doi:10.1029/2007JB005497. [10]
- Grad M., Tiira T., and ESC Working Group, 2009, The Moho depth map of the European Plate: *Geophysical Journal International*, v. 176, p. 279–292, doi: 10.1111/j.1365-246X.2008.03919.x. [10]
- Graeber, F.M., and Asch, G., 1999, Three-dimensional models of P wave velocity and P- to S-velocity ratio in the southern central Andes by simultaneous inversion of local earthquake data: *Journal of Geophysical Research*, v. 104, p. 20,237–20,256, doi:10.1029/1999JB900037. [9]
- Granet, M., Stoll, G., Dorel, G., Achauer, U., Poupinet, G., and Fuchs, K., 1995, Massif Central (France): new constraints on the geodynamical evolution from teleseismic tomography: *Geophysical Journal International*, v. 121, p. 33–48, doi:10.1111/j.1365-246X.1995.tb03509.x. [9]
- GRANIT Transect, 1992, in Rybalka, V., and Kashubin, S., eds., Methods and results of investigations: Ekaterinburg, URGK I UTP VNTGeo, 113 p. (in Russian). [9]
- Grant, A.C., 1975, Structural modes of the western margin of the Labrador Sea, in van der Linden, W.J.M., and Walde, J.A., eds., Offshore Geology of Eastern Canada, vol. II, Geological Survey of Canada Paper 74-30, p. 217–231. [7]
- Grant, F.S., and West, G.F., 1965, Interpretation theory in applied geophysics: New York, McGraw-Hill, 584 p. [2] [10]
- Green, A.G., Berry, M.J., Spencer, C.P., Kanasewich, E.R., Chiu, S., Clowes, R.M., Yorath, C.J., Stewart, D.B., Unger, J.D., and Poole, W.H., 1986, Recent seismic reflection studies in Canada, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 85–97. [2] [7] [8]
- Green, A.G., Cannon, W.F., Milkereit, B., Hutchinson, D.R., Davidson, A., Behrendt, J.C., Spencer, C., Lee, M.W., Morel-a-l'Hussier, P., and Agena, W.F., 1989, A “GLIMPCE” of the deep crust beneath the Great Lakes, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., Properties and processes of earth's lower crust: American Geophysical Union, Geophysical Monograph 51, p. 65–80. [2] [8]
- Green, A.G., Milkereit, B., Morel-a-l'Hussier, P., Spencer, C., Ellis, R.M., Clowes, R.M., and Ansorge, J., 1990a, Studies of laterally heterogeneous structures using seismic refraction and reflection data: *Geological Survey of Canada Paper* 89-13: 224 p. [2] [8] [10]
- Green, A.G., Clowes, R.M., and Ellis, R.M., 1990b, Crustal studies across Vancouver Island and adjacent offshore margin: *Geological Survey of Canada paper* 89-13, p. 3–25. [2] [8]
- Green, R.W.E., 1973, A portable multi-channel recorder and a data processing system: *Bulletin of the Seismological Society of America*, v. 63, p. 423–431. [7]
- Green, R.W.E., and Hales, A.L., 1966, Seismic refraction measurements in the southwestern Indian Ocean: *Journal of Geophysical Research*, v. 71, p. 1637–1648. [6]
- Green, W.V., Achauer, U., and Meyer, R.P., 1991, A three-dimensional seismic image of the crust and upper mantle beneath the Kenya rift: *Nature*, v. 354, p. 199–203, doi:10.1038/354199a0. [9]
- Greenroyd, C.J., Peirce, C., Rodger, M., Watts, A.B., and Hobbs, R.W., 2006, Crustal structure of the French Guiana continental margin—implications for rifting and the early spreading of the equatorial Atlantic: *European Geophysical Union, Annual Meeting 2006, Geophysical Research Abstracts*, 8, 07788. [2] [10]
- Gregersen, S., Flüh, E.R., Moeller, C., and Hirschleber, H., 1987, Seismic data of the EUGENO-S project (European Geotraverse Northern segment Southern part): *Open-File Report, Department of Seismology, Danish Geodetic Institute, Charlottenlund, Denmark*. [8]
- Gregersen, S., Voss, P., and TOR Working Group, 2002, Summary of project TOR delineation of a stepwise, sharp, deep lithosphere transition across Germany-Denmark-Sweden: *Tectonophysics*, v. 360, p. 61–73, doi:10.1016/S0040-1951(02)00347-5. [9]
- Grevemeyer, I., Weigel, W., Whitmarsh, R.B., Avedik, F., and Deghani, G.A., 1997, The Aegir Rift: crustal structure of an extinct spreading axis: *Marine Geophysical Research*, v. 19, p. 1–23. [8]
- Grevemeyer, I., Weigel, W., and Jennrich, C., 1998, Seismic structure and crustal ageing at 14°S on the East Pacific Rise: *Geophysical Journal International*, v. 135, p. 573–584, doi:10.1046/j.1365-246X.1998.00673.x. [2] [9]
- Grevemeyer, I., Flueh, E.R., Reichert, C., Bialas, J., Kläschen, D., and Kopp, C., 2001a, Crustal architecture and deep structure of the Ninetyeast Ridge hotspot trail from active-source ocean bottom seismology: *Geophysical Journal International*, v. 144, p. 414–431, doi:10.1046/j.0956-540X.2000.01334.x. [2] [9]
- Grevemeyer, I., Weigel, W., Schüssler, S., and Avedik, F., 2001b, Crustal and upper mantle seismic structure and lithospheric flexure along the Society Island hotspot chain: *Geophysical Journal International*, v. 147, p. 123–140, doi:10.1046/j.0956-540X.2001.01521.x. [2] [8] [9]
- Grevemeyer, I., Aric, K., Booth-Rea, G., Böhme, G., Faria, B., Fröhlich, J., Greenroyd, G., Haase, C., Hahn, J., Kahl, G., Krabbenhoft, A., Neiss, H., Nöske, M., Osenhirt, W.-T., Peirce, C., Rodger, M., Schnabel, M., Schlesinger, A., Schwenk, A., Wäbs, S., and Weinrebe, W., 2009, Cape Verde Hotspot: A seismic refraction study of isostasy and magmatic underplating, in Steinfeld, R., Rhein, M., Brandt, P., Grevemeyer, I., Reston, T., Devey, C., and Lackschewitz, K., eds., Oceanography, geology and geophysics of the South Equatorial Atlantic. Meteor-Berichte M62, no. 09-1. Leistelle METEOR, Institute Meereskunde, University of Hamburg, p. 3-1–3-40. [2] [10]
- Griffiths, D.J., and Westbrook, G.K., 1992, Deep Geology, in Duff, P.McL.D., and Smith, A.J., eds., Geology of England and Wales: Geological Society of London. [7]
- Griffiths, D.H., King, R.F., Khan, M.A., and Blundell, D.J., 1971, Seismic refraction line in the Gregory rift: *Nature*, v. 229, p. 69–71. [2] [6]
- Grobys, J.W.G., Gohl, K., Davy, B., Uenzelmann-Neben, G., Deen, T., and Barker, D., 2007, Is the Bounty Trough off eastern New Zealand an aborted rift?: *Journal of Geophysical Research*, v. 112: B03103, doi:10.1029/2005JB004229. [2] [10]
- Grobys, J.W.G., Gohl, K., Uenzelmann-Neben, G., Davy, B., and Barker, D., 2009, Extensional and magmatic nature of the Campbell Plateau and Great South Basin from deep crustal studies: *Tectonophysics*, v. 472, no. 1–4, p. 213–225, doi:10.1029/2005JB004229. [2] [10]
- Groß, K., Micksch, U., and TIPTEQ Research Group, Seismics Team, 2008, The reflection seismic survey of project TIPTEQ—the inventory of the Chilean subduction zone at 38.2° S: *Geophysical Journal International*, v. 172, p. 565–571, doi:10.1111/j.1365-246X.2007.03680.x. [10]
- Groupe d'Etudes des Explosions Alpines (Closs, H., and Labrouste, Y., editors), 1963, Recherches sismologiques dans les Alpes Occidentales au moyen de grandes explosions en 1956, 1958 et 1960: Ventre National de la Recherche Scientifique, Serie XII, Fasc. 2: 241 p. [5]

- Groupe Grands Profils Sismiques and German Research Group for Explosions Seismology, 1972, A long-range seismic profile in France from the Bretagne to the Provence: *Annales de Géophysique*, v. 28, p. 247–256. [7]
- Guellec, S., Mugnier, J.-L., Tardy, M., and Roure, F., 1990, Neogene evolution of the western Alpine foreland in the light of ECORS data and balanced cross section: *Mémoires de la Société Géologique de France*, N.S., 156, p. 165–184. [2] [8]
- Guggisberg, B., and Berthelsen, A., 1987, A two-dimensional velocity-model for the lithosphere beneath the Baltic Shield and its possible tectonic significance: *Terra Cognita*, v. 7, p. 631–638. [2] [7] [8] [9]
- Guggisberg, B., Kaminski, W., and Prodehl, C., 1991, Crustal structure of the Fennoscandian Shield: A traveltme interpretation of the long-range FENNOLORA seismic refraction profile, in Freeman, R., Huch, M., and Mueller, St., eds., *The European Geotraverse, Part 7: Tectonophysics*, v. 195, p. 105–137. [2] [7] [8]
- Gutenberg, B., 1914, Über Erdbebenwellen. VIIA. Beobachtungen an Registrierungen von Fernbeben in Göttingen und Folgerungen über die Konstitution des Erdkörpers: *Nachrichten der Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-physikalische Klasse*, p. 1–52. [3]
- Gutenberg, B., 1924, Dispersion und Extinktion von seismischen Oberflächenwellen und der Aufbau der obersten Erdschichten: *Physikalische Zeitschrift*, v. 25, p. 377–381. [3]
- Gutenberg, B., 1926, Die Geschwindigkeit der Erdbebenwellen in den obersten Erdschichten und ihr Einfluss auf die Ergebnisse einiger Probleme der Seismometrie: *Gerlands Beiträge zur Geophysik*, v. 15, p. 51–63. [3]
- Gutenberg, B., 1932a, Beobachtungen von Erdbebenwellen, in *Handbuch der Geophysik*, vol. 4, ed.: Berlin: Gebr. Bornträger, p. 151–263. [3]
- Gutenberg, B., 1932b, Travel-time curves at small distances and wave velocities in southern California: *Gerlands Beiträge zur Geophysik*, v. 35, p. 6–45. [3]
- Gutenberg, B., 1934, The propagation of the longitudinal waves produced by the Long Beach earthquake: *Gerlands Beiträge zur Geophysik*, v. 41, p. 114–120. [3]
- Gutenberg, B., 1936, The structure of the Earth's crust and the spreading of the continents: *Bulletin of the Geological Society of America*, v. 47, p. 1587–1610. [3]
- Gutenberg, B., 1943a, Seismological evidence for the roots of mountains: *Bulletin of the Geological Society of America*, v. 54, p. 473–498. [4]
- Gutenberg, B., 1943b, Earthquakes and structure in southern California: *Bulletin of the Geological Society of America*, v. 54, p. 499–526. [4]
- Gutenberg, B., 1946, Interpretation of records obtained from the New Mexico atomic bomb test, July 16, 1945: *Bulletin of the Seismological Society of America*, v. 36, p. 327–330. [2] [4]
- Gutenberg, B., 1951a, Travel times from blasts in southern California: *Bulletin of the Seismological Society of America*, v. 41. [4]
- Gutenberg, B., 1951b, Crustal layers of continents and oceans: *Geological Society of America Bulletin*, v. 62, p. 427–440, doi:10.1130/0016-7606(1951)62[427:CLOTCA]2.0.CO;2. [2] [4]
- Gutenberg, B., 1952, Waves from blasts recorded in southern California: *American Geophysical Union Transactions*, v. 33, p. 427–431. [5]
- Gutenberg, B., 1955, Wave velocities in the earth's crust, in Poldervart, A., ed., *Crust of the earth (a symposium)*: Geological Society of America Special Paper 62, p. 19–34. [2] [4]
- Gutenberg, B., and Richter, C.F., 1946, Seismic waves from atomic bomb tests: *Transactions, American Geophysical Union*, v. 27, p. 776. [2] [4]
- Gutenberg, B., Wood, H.O., and Buwalda, J.P., 1932, Experiments testing seismographic methods for determining crustal structure: *Bulletin of the Seismological Society of America*, v. 22, p. 185–246. [3]
- Guterch, A., 1974, Refraction studies of structure of the earth's crust and upper mantle with deep seismic sounding method on the territory of Poland: *Acta Geophysica Polonica*, v. 22, p. 225–246. [7]
- Guterch, A., 1977, Structure and physical properties of the earth's crust in Poland in the light of new data of DSS: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, A14 (115), p. 347–357. [2] [7]
- Guterch, A., and Sellevoll, M.A., 1981, Seismic studies of the earth's crust structure in the West Spitsbergen and Greenland Sea carried out in 1976 and 1978 [abst.]: *Eos*, v. 62, p. 217. [7]
- Guterch, A., Uchman, J., and Wojtczak-Gadomska, B., 1967, Investigations on the earth's crustal structure in Poland by means of deep seismic sounding: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, v. 14, p. 115–127. [2] [6]
- Guterch, A., Materzok, R., and Pajchel, J., 1973, Preliminary results of deep seismic soundings on the southeastern part of international profile VII: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, v. 60, p. 53–62. [6]
- Guterch, A., Pajchel, J., Perchuc, E., Kowalski, J., Duda, S., Komber, J., Bojdys, G., and Sellevoll, M.A., 1978, Seismic reconnaissance measurement on the crustal structure in the Spitsbergen region 1976, University of Bergen, Seismological Observatory, Bergen: 61 p. [7]
- Guterch, A., Grad, M., Materzok, R., and Toporkiewicz, S., 1983, Structure of the earth's crust of the Permian basin in Poland: *Acta Geophysica Polonica*, v. 31, p. 121–138. [2] [7]
- Guterch, A., Grad, M., Janik, T., Perchuc, E., and Pajchel, J., 1985, Seismic studies of the crustal structure in West Antarctica 1979–1980—preliminary results, in Husebye, E.S., Johnson, G.L., and Kristoffersen, Y., eds., *Geophysics of the polar regions: Tectonophysics*, v. 114, p. 411–429. [2] [7]
- Guterch, A., Grad, M., Materzok, R., Perchuc, E., and Toporkiewicz, 1986, Results of seismic crustal studies in Poland 1969–1985 (in Polish): *Publications of the Institute of Geophysics, Polish Academy of Sciences*, A-17 (192), p. 3–83. [8]
- Guterch, A., Grad, M., Materzok, R., Perchuc, E., Janik, T., Gaczynski, E., Doan, T.T., Bialek, T., Gadomski, D., Meynarski, S., and Toporkiewicz, 1991a, Structure of the lower crust of the Paleozoic platform in Poland from seismic wide-angle and near-vertical reflection surveys: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, A-19 (236), p. 41–61. [2] [6] [7] [8]
- Guterch, A., Luosto, U., Grad, M., Yliniemi, J., Gaczynski, E., Korhonen, H., Janik, T., Lindblom, P., Materzok, R., and Perchuc, E., 1991b, Seismic studies of crustal structure in the Tornquist-Tesseyre-Zone in northwestern Poland: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, A-19 (236), p. 147–156. [2] [8]
- Guterch, A., Grad, M., Janik, T., Materzok, R., Luosto, U., Yliniemi, J., Lück, E., Schulze A., Förste K., 1994, Crustal structure of the transition zone between Precambrian and Variscan Europe from new seismic data along LT-7 profile (NW Poland and eastern Germany). *Comptes rendus de l'Académie de sciences, Paris*, 319, ser.II, 1489–1496. [8]
- Guterch, A., Grad, M., Janik, T., and Sroda, P., 1998, Polish geodynamic expeditions—seismic structure of West Antarctica: *Polish Polar Research*, v. 19, p. 113–123. [8] [9]
- Guterch, A., Grad, M., Thybo, H., Keller, G.R., and the POLONAISE Working Group, 1999, POLONAISE '97—an international seismic experiment between Precambrian and Variscan Europe in Poland: *Tectonophysics*, v. 314, p. 101–121, doi:10.1016/S0040-1951(99)00239-5. [2] [9]
- Guterch, A., Grad, M., and Keller, G.R., 2001, Seismologists celebrate the new millennium with an experiment in central Europe: *Eos (Transactions, American Geophysical Union)*, v. 82, p. 529, 533–534, doi:10.1029/01EO00313. [9]
- Guterch, A., Grad, M., Spicak, A., Brückl, E., Hegedüs, E., Keller, G.R., Thybo, H., and CELEBRATION 2000, ALP 2002, SUDETES 2003 Working Groups, 2003a, An Overview of Recent Seismic Refraction Experiments in Central Europe: *Studia in Geophysica et Geodaetica, Academy of Science, Czech Republic, Prague*, v. 47, 651–658. [2] [9] [10]
- Guterch, A., Grad, M., Keller, G.R., Posgay, K., Vozar, J., Spicak, A., Brueckl, E., Hajnal, Z., Thybo, H., Selvi, O., and CELEBRATION 2000 Experiment Team, 2003b, CELEBRATION 2000 seismic experiment: *Studia in Geophysica et Geodaetica, Academy of Science, Czech Republic, Prague*, v. 47, p. 659–669. [2] [9]
- Guterch, A., Grad, M., and Keller, G.R., 2007, Crust and lithospheric structure—long range controlled source seismic experiments in Europe, in Romanowicz, B., and Dziewonski, A., eds., *Seismology and structure of the earth: Amsterdam, Elsevier, Treatise on Geophysics*, vol. 1, p. 533–558. [2] [10]
- Haalk, H., 1934, *Lehrbuch der angewandten Geophysik* (p. 300–305): Verlag Gebrüder Bornträger. [3]
- Hajnal, Z., Fowler, M.R., Mereu, R.F., Kanasewich, E.R., Cumming, G.L., Green, A.G., and Mair, J.A., 1984, An initial analysis of the earth's crust under the Williston Basin: 1979 COCRUST experiment: *Journal of Geophysical Research*, v. 89, p. 9381–9400, doi:10.1029/JB089iB11p09381. [2] [7] [8]
- Hajnal, Z., Reilkoff, B., Posgay, K., Hegedus, E., Takacs, E., Asudeh, I., Mueller, St., Ansorge, J., and Defaco, R., 1996, Crustal-scale extension in the central Pannonian basin: *Tectonophysics*, v. 264, p. 191–204, doi:10.1016/S0040-1951(96)00126-6. [2] [9]

- Hajnal, Z., Ansdell, K.M., and Ashton, K.E., eds., 2005a, The Trans-Hudson Orogen Transect of Lithoprobe: Canadian Journal of Earth Science (special issue), v. 42, p. 379–761, doi:10.1139/e05-053. [2] [9]
- Hajnal, Z., Lewry, J., White, D.J., Ashton, K., Clowes, R., Stauffer, M., Gyorfi, I., and Takacs, E., 2005b, The Sask Craton and Hearne Province margin: seismic-reflection studies in the western Trans-Hudson Orogen: Canadian Journal of Earth Science, v. 42, p. 403–419, doi:10.1139/e05-026. [2] [9]
- Hales, A.L., 1973, The crust of the Gulf of Mexico: a discussion, in Mueller, S., ed., The structure of the earth's crust, based on seismic data: Tectonophysics, v. 20, p. 217–225. [2] [6]
- Hales, A.L., and Asada, T., 1966, Crustal structure in coastal Alaska, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: American Geophysical Union Geophysical Monograph 10, p. 420–432. [5]
- Hales, A.L., and Nation, J.B., 1972, A crustal structure profile on the Agulhas bank: Bulletin of the Seismological Society of America, v. 62, p. 1029–1051. [6]
- Hales, A.L., and Nation, J.B., 1973a, A seismic refraction survey in the Northern Rocky Mountains: More evidence for an intermediate crustal layer: Geophysical Journal of the Royal Astronomical Society, v. 35, p. 381–399. [6]
- Hales, A.L., and Nation, J.B., 1973b, A seismic refraction study in the Indian Ocean: Bulletin of the Seismological Society of America, v. 63, p. 1951–1966. [2] [6] [7]
- Hales, A.L., and Rynn, J.M.W., 1978, A long-range, controlled source seismic profile in northern Australia: Geophysical Journal of the Royal Astronomical Society, 55, p. 633–644. [7]
- Hales, A.L., Helsley, C.E., Dowling, J.J., and Nation, J.B., 1967, The east coast on-shore off-shore experiment, 1. The first arrivals: Air Force Office of Scientific Research Final Report AFOSR 67-0852, 121 p. [6]
- Hales, A.L., Helsley, C.E., Dowling, J.J., and Nation, J.B., 1968, The east coast onshore-offshore experiment: 1. The first arrival phases: Bulletin of the Seismological Society of America, v. 58, p. 757–819. [2] [6]
- Hales, A.L., Helsley, C.E., and Nation, J.B., 1970, Crustal study on the Gulf coast of Texas: American Association of Petroleum Geologists Bulletin, v. 54, p. 2040–2057. [6]
- Hales, A.L., Muirhead, K.J., and Rynn, J.M.W., 1980, A compressional velocity distribution for the upper mantle: Tectonophysics, v. 63, p. 309–348, doi:10.1016/0040-1951(80)90119-5. [2] [7]
- Hall, J., 1978, LUST—a seismic refraction survey of the Lewisian basement complex in NW Scotland: Journal of the Geological Society London, v. 135, p. 555–563, doi:10.1144/gsjgs.135.5.0555. [2] [7]
- Hall, J., and Quinian, G., 1994, A collisional crustal fabric pattern recognized from seismic reflection profiles of the Appalachian/Caledonide orogen: Tectonophysics, v. 232, p. 31–42, doi:10.1016/0040-1951(94)90074-4. [8]
- Hall, J., Quinian, G., Marillier, F., and Keen, C., 1990, Dipling shear zones and the base of the crust in the Appalachians, offshore Canada, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., Seismic probing of continents and their margins: Tectonophysics, v. 173, p. 581–593. [8]
- Hall, J., Loudon, K.E., Funck, T., and Deemer, S., 2002, Geophysical characteristics of the continental crust along the Lithoprobe Eastern Canadian Shield Onshore–Offshore Transect (ESCOOT): a review: Canadian Journal of Earth Science, v. 39, p. 569–587, doi:10.1139/e02-005. [9]
- Hamilton, R.M., 1986, Seismic reflection studies by the U.S. Geological Survey, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 99–106. [2] [7] [8]
- Hamilton, R.M., Ryall, A., and Berg, E., 1964, Crustal structure southwest of the San Andreas fault from quarry blasts: Bulletin of the Seismological Society of America, v. 54, p. 67–77. [6]
- Hammer, P.T.C., and Clowes, R.M., 2004, The accreted terranes of northwestern British Columbia, Canada: lithospheric velocity structure and tectonics: Journal of Geophysical Research, v. 109, B06305, doi:10.1029/2003JB002749, 19p. [9]
- Hammer, P.T.C., Dorman, L., Hildebrand, J.A., and Cornuelle, B.D., 1994, Jasper Seamount structure: seafloor seismic refraction tomography: Journal of Geophysical Research, v. 99, p. 6731–6752. [9]
- Hammer, P.T.C., Clowes, R.M., and Ellis, R.M., 2000, Crustal structure of NW British Columbia and SE Alaska from seismic wide-angle studies: Coast Plutonic Complex to Stikinia: Journal of Geophysical Research, v. 105, p. 7961–7981, doi:10.1029/1999JB900378. [2] [9]
- Hampel, A., Kukowski, N., Bialas, J., and Huebscher, C., 2004, Ridge subduction at an erosive margin: the collision zone of the Nazca ridge in southern Peru: Journal of Geophysical Research, v. 109 (2), doi:10.1029/2003JB002593. [9]
- Hanson, K., Berg, E., and Gedney, L., 1968, A seismic refraction profile and crustal structure in central interior Alaska: Bulletin of the Seismological Society of America, v. 58, p. 1657–1665. [2] [6]
- Harding, A., 2001, Seismic structure, in Steele, J., Thorpe, S., and Turekian, K., eds., Encyclopedia of Ocean Sciences: Amsterdam, Academic Press, Elsevier, p. 2731–2737. [10]
- Harrington, P.K., Barker, P.F., and Griffiths, D.H., 1972, Crustal structure of the South Orkney Islands area from seismic refraction and magnetic measurements, in Adie, R.J., ed., Antarctic Geology and Geophysics, Universitets Forlaget, Oslo (UUGS series B number1), p. 27–32. [6]
- Harris, L.D., Harris, A.G., de Witt, W., Jr., and Bayer, K.C., 1981, Evaluation of southern eastern overthrust belt beneath Blue Ridge–Piedmont thrust: American Association of Petroleum Geologists Bulletin, v. 65, p. 2497–2505. [2] [7]
- Harris, R.N., Walter, A.W., and Fuis, G.S., 1988, Data report for 1980–1981 seismic refraction profiles in the western Mojave desert, California: U.S. Geological Survey Open-File Report 88-580, Menlo Park, California: 65 p. [2] [8]
- Harrison, A., and White, R.S., 2006, Lithospheric structure of an active backarc basin: the Taupo Volcanic Zone, New Zealand: Geophysical Journal International, v. 167, p. 968–990, doi:10.1111/j.1365-246X.2006.03166.x. [2] [10]
- Hart, P.J., ed., 1969, The Earth's crust and upper mantle: American Geophysical Union, Geophysical Monograph, v. 13, 735 p. [2] [6]
- Hart, P.J., 1954, Variation of velocity near the Mohorovičić discontinuity under Maryland and northeastern Virginia [thesis]: Cambridge, Massachusetts, Harvard University. [6]
- Hart, P.J., 1964, Upper Mantle Project: American Geophysical Union Transactions, v. 45, p. 423–428. [6]
- Hasbrouck, W.P., 1964, A seismic reflection crustal study in central eastern Colorado [Ph.D. thesis]: Colorado School of Mines, 133 p. [6]
- Hashizume, M., Oike, K., Asano, S., Hamaguchi, H., Okada, H., Murauchi, S., Shima, E., and Nogoshi, M., 1968, Crustal structure in the profile across the northeastern part of Honshu, Japan, as derived from explosion seismology observations, part 2: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 46, p. 607–630. [8]
- Hatcher, R.D., Jr., Costain, J.K., Coruh, C., Phinney, R.A., and Williams, R.T., 1987, Tectonic implications of new Appalachian Ultradeep Core Hole (ADCOH) seismic reflection data from the crystalline southern Appalachians: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 157–162. [8]
- Hauksson, E., and Haase, J.S., 1997, Three-dimensional Vp and Vp/Vs velocity models of the Los Angeles basin and central Transverse Ranges, California: Journal of Geophysical Research, v. 102, p. 5423–5453, doi:10.1029/96JB03219. [9]
- Hauser, E.C., and Lundy, J., 1989, COCORP deep reflections: Moho at 50 km (16s) beneath the Colorado Plateau: Journal of Geophysical Research, v. 94, p. 7071–7081, doi:10.1029/JB094iB06p07071. [8]
- Hauser, E.C., Gephart, J., Latham, L., Brown, L.D., Kaufman, S., Oliver, J.E., and Lucchitta, I., 1987a, COCORP Arizona transect: strong crustal reflections and offset Moho beneath the transition zone: Geology, v. 15, p. 1103–1106, doi:10.1130/0091-7613(1987)15<1103:CATSCR>2.0.CO;2. [2] [8]
- Hauser, E.C., Potter, C., Hauge, T., Burgess, S., Burtch, S., Mutschler, J., Allmendinger, R., Brown, L., Kaufman, S., and Oliver, L., 1987b, Crustal structure of eastern Nevada from COCORP deep seismic reflection data: Geological Society of America Bulletin, v. 99, p. 833–844, doi:10.1130/0016-7606(1987)99<833:CSOENF>2.0.CO;2. [9]
- Hauser, F., O'Reilly, B.M., Jacob, A.W.B., Shannon, P.M., Makris, J., and Vogt, U., 1995, The crustal structure of the Rockall Trough: differential stretching without underplating: Journal of Geophysical Research, v. 100, p. 4097–4116, doi:10.1029/94JB02879. [2] [8] [10]
- Hauser, F., Raileanu, V., Prodehl, C., Bala, A., Schulze, A., and Denton, P., 2000, The Seismic-Refraction Project VRANCEA-99: Geophysical Institute, University of Karlsruhe, Open-File Report. [9]
- Hauser, F., Raileanu, F., Fielitz, W., Bala, A., Prodehl, C., and Polonic, G., 2001, The crustal structure between the southeastern Carpathians and the Moesian platform from a refraction seismic experiment in Romania: Tectonophysics, v. 340, p. 233–256, doi:10.1016/S0040-1951(01)00195-0. [2] [9]

- Hauser, F., Prodehl, C., Landes, M., and the VRANCEA Working Group, 2002, Seismic experiments target earthquake-prone region in Romania: *Eos (Transactions, American Geophysical Union)*, v. 83, p. 457, 462–463. [9] [10]
- Hauser, F., Raileanu, V., Fielitz, W., Dinu, C., Landes, M., Bala, A., and Prodehl, C., 2007a, Seismic crustal structure between the Transylvanian Basin and the Black Sea, Romania: *Tectonophysics*, v. 430, p. 1–25, doi:10.1016/j.tecto.2006.10.005. [2] [9] [10]
- Hauser, F., O'Reilly, B.M., and Readman, P.W., 2007b, The Porcupine Irish Margins Project: first data examples from an onshore/offshore seismic experiment in SW Ireland [abst.]: 50th Annual Irish Geological Research Meeting, School of Environmental Sciences, University of Ulster, Coleraine, Northern Ireland, 23–25 February. [2] [10]
- Hawkins, L.V., Hennion, J.F., Nafe, J.E., and Doyle, H.A., 1965a, Marine seismic refraction studies on the continental margin to the South of Australia: *Deep Sea Research*, v. 12, p. 479–495. [2] [6]
- Hawkins, L.V., Hennion, J.F., Nafe, J.E., and Thyer, R.F., 1965b, Geophysical investigations in the area of the Perth Basin, Western Australia: *Geophysics*, v. 30, p. 1026–1052, doi:10.1190/1.1439686. [2] [6]
- Hawman, R.B., Chapman, M.C., Powell, C.A., Clippard, J.E., and Ahmed, H.O., 2001, Wide-angle reflection profiling with quarry blasts in the Eastern Tennessee Seismic Zone: *Seismological Research Letters*, v. 72, p. 108–122. [2] [9]
- Hayes, R.C., 1936, Seismic waves and crustal structure in the New Zealand Region: *New Zealand Journal of Science and Technology*, v. 17, 1; Dom. Obs. 101 (S.26). [3]
- Hayes, D.E., Houtz, R.E., Jarrard, R.D., Mrozowski, C.L., and Watanabe, T., 1978, A geophysical Atlas, East and Southeast Asian Seas, crustal structure; Map scale at equator 1:6,442,194: Chart compilation by the Office for the International Decade of Ocean Exploration (I.D.O.E.) of the National Science Foundation: Geological Society of America Map and Chart Series MC-25. [7]
- Heacock, J.G., ed., 1971, The structure and physical properties of the Earth's crust: *American Geophysical Union Geophysical Monograph* 14, 348 p. [2] [6]
- Heacock, J.G., ed., 1977, The Earth's crust—its nature and properties: *American Geophysical Union Geophysical Monograph* 20, 754 p. [2] [7]
- Healy, J.H., 1963, Crustal structure along the coast of California from seismic-refraction measurements: *Journal of Geophysical Research*, v. 68, p. 5789–5806. [6]
- Healy, J.H., and Peake, L.G., 1975, Seismic velocity structure along a section of the San Andreas fault near Bear Valley, California: *Bulletin of the Seismological Society of America*, v. 65, p. 1177–1197. [6]
- Healy, J.H., and Warren, D.H., 1969, Explosion seismic studies in North America, in Hart, P.J., ed., The earth's crust and upper mantle: *American Geophysical Union Geophysical Monograph* 13, p. 208–220. [2] [6] [10]
- Healy, J.H., Mooney, W.D., Blank, H.R., Gettings, M.E., Kohler, W.M., Lamson, R.J., and Leone, L.E., 1982, Saudi Arabian seismic deep-refraction profile: Final Project Report, Saudi Arabian Deputy Ministry of Mineral Resources, Open-File Report, USGS OFR-02-37, 429 p., including appendices; also U.S. Geological Survey Open-File Report 83-390. [2] [7] [8]
- Hecker, O., 1900, Ergebnisse der Messung von Bodenbewegungen bei einer Sprengung: *Gerlands Beiträge zur Geophysik*, v. 4, p. 98–104. [3]
- Hecker, O., 1922, Die Explosionskatastrophe von Oppau am 21 September 1921 nach den Aufzeichnungen der Erdbebenwarten. Veröff. D. Hauptstation Erdbebenforsch. Jena, Heft 2, p. 3–18. [3]
- Heitzmann, P., Frei, W., Lehner, P., and Valasek, P., 1991, Crustal indentation in the Alps—an overview of reflection seismic profiling in Switzerland, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: *American Geophysical Union, Geodynamics Series*, v. 22, p. 161–176. [2] [8]
- Helmberger, D.V., 1968, The crust-mantle transition in the Bering Sea: *Bulletin of the Seismological Society of America*, v. 58, p. 179–214. [6] [7] [8]
- Henry, W.J., Mechic, J., Maguire, P.K.H., Khan, M.A., Prodehl, C., Keller, G.R., and Patel, J., 1990, A seismic investigation of the Kenya rift valley: *Geophysical Journal International*, v. 100, p. 107–130, doi:10.1111/j.1365-246X.1990.tb04572.x. [2] [8]
- Henrys, S.A., Davey, F.J., and OBrien, B., 1995, Crustal structure of the Southern Hikurangi subduction zone, New Zealand (abst.): *Eos (Transactions, American Geophysical Union)*, v. 76, no. 46, Fall Meeting Supplement, F550. [2] [9]
- Henrys, S., Reyners, M., and Bibby, H., 2003a, Exploring the plate boundary structure of the North Island, New Zealand: *Eos (Transactions, American Geophysical Union)*, v. 84, no. 31, p. 289, 294–295, doi:10.1029/2003EO310002. [10]
- Henrys, S.A., Bannister, S., Pecher, I.A., Davey, F., Stern, T., Stratford, W., White, R., Harrison, T., Nishimura, Y., and Yamada, A., 2003b, New Zealand North Island Geophysical Transect (NIGHT): Field Acquisition Report: Institute of Geological and Nuclear Sciences Science Report 2003/19, Institute of Geological and Nuclear Sciences Science, Lower Hutt, New Zealand. [2] [10]
- Henrys, S., Reyners, M., Pecher, I., Bannister, S., Nishimura, Y., and Maslen, G., 2006, Kinking of the subducting slab by escalator normal faulting beneath the North Island of New Zealand: *Geology*, v. 34, p. 777–780. [10]
- Henstock, T.J., and Levander, A., 2000, Lithospheric evolution in the wake of the Mendocino Triple Junction: structure of the San Andreas fault system at 2 Ma: *Geophysical Journal International*, v. 140, p. 233–247, doi:10.1046/j.1365-246x.2000.00010.x. [9]
- Henstock, T.J., Levander, A., and Hole, J.A., 1997, Deformation in the lower crust of the San Andreas fault system in northern California: *Science*, v. 278, p. 650–653, doi:10.1126/science.278.5338.650. [9]
- Henstock, T.J., Levander, A., Snelson, C.M., Keller, G.R., Miller, K.C., Harder, S.H., Gorman, A.R., Clowes, R.M., Burianyk, M.J.A., and Humphreys, E.D., 1998, Probing the Archean and Proterozoic lithosphere of western North America: *GSA Today*, v. 8, p. 1–5, 16–17. [9]
- Heney, T.E., Okaya, D.A., Frost, E.G., and McEvilly, T.V., 1987, CALCRUST (1985) seismic reflection survey, Whipple Mountains detachment terrane, California: an overview: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 111–118. [8]
- Herglotz, G., 1907, Über das Benndorfsche Problem der Fortpflanzungsgeschwindigkeit der Erdbebenstrahlen: *Phys. Zeitschrift*, Band 8, 145–147. [3]
- Herquel, G., Wittlinger, G., and Guibert, J., 1995, Anisotropy and crustal thickness of northern Tibet. New constraints for tectonic modelling: *Geophysical Research Letters*, v. 22, p. 1925–1928, doi:10.1029/95GL01789. [9]
- Herrin, E., 1969, Regional variations of P-wave velocity in the upper mantle beneath North America, in Hart, P.J., ed., The earth's crust and upper mantle: *American Geophysical Union, Geophysical Monograph* 13, p. 242–246. [6]
- Herron, T.J., Ludwig, W.J., Stoffa, P.L., Kan, T.K., and Bühl, P., 1978, Structure of the East Pacific Rise crest from multichannel seismic reflection data: *Journal of Geophysical Research*, v. 83, p. 798–804, doi:10.1029/JB083iB02p00798. [2] [7] [8]
- Hersey, J.B., 1963, Continuous reflection profiling, in Hill, M.N., ed., *The Sea* vol. 3. The earth beneath the Sea: Interscience Publ., New York-London, p. 47–72. [4] [5]
- Hersey, J.B., and Ewing, M., 1949, Seismic reflections from beneath the ocean floor: *Transactions, American Geophysical Union*, v. 30, p. 5–14. [4]
- Hersey, J.B., Officer, C.B., Johnson, H.R., and Bergstrom, S., 1952, Seismic refraction observations north of the Brownson Deep: *Bulletin of the Seismological Society of America*, v. 42, p. 291–306. [4] [5]
- Hersey, J.B., Bunce, E.T., Wyrrick, R.F., and Dietz, F.T., 1959, Geophysical investigations of the continental margin between Cape Henry, Virginia, and Jacksonville, Florida: *Bulletin of the Geological Society of America*, v. 70, p. 437–466, doi:10.1130/0016-7606(1959)70[437:GOTCM]2.0.CO;2. [2] [5]
- Hess, H.H., 1954, Geological hypotheses and the Earth's crust under the oceans: *Royal Society London Proceedings, ser. A*, v. 222, p. 341–348. [5]
- Hess, H., 1964, Seismic anisotropy of the uppermost mantle under the oceans: *Nature*, v. 203, p. 629–631, doi:10.1038/203629a0. [6]
- Hickman, S., Zoback, M., Younker, L., and Ellsworth, W., 1994, Deep scientific drilling in the San Andreas fault zone: *Eos (Transactions, American Geophysical Union)*, v. 75, p. 137, 140, 142, doi:10.1029/94EO00830. [9] [10]
- Hicks, N.O., 2001, Lithospheric structure of the Basin and Range province, southwestern Colorado Plateau: Southeastern California, southern Nevada, and western Arizona [M.Sc.thesis]: University of Texas at El Paso, United States, 162 p. [2] [9]
- Hildenbrand, T.G., Schweig, E.S., Catchings, R.D., Langenheim, V.E., Mooney, W.D., Pratt, T.L., and Stanley, W.D., 1995, Crustal geophysics gives insight into New Madrid seismic zone: *Eos (Transactions, American Geophysical Union)*, v. 76, no. 7, p. 65, 68–69. [9]
- Hill, D.P., 1969, Crustal structure of the island of Hawaii from seismic-refraction measurements: *Bulletin of the Seismological Society of America*, v. 59, p. 101–130. [2] [6]

- Hill, D.P., 1972, Crustal and upper mantle structure of the Columbia plateau from long range seismic-refraction measurements: Geological Society of America Bulletin, v. 83, p. 1639–1648, doi:10.1130/0016-7606(1972)83[1639:CAUMSO]2.0.CO;2. [6]
- Hill, D.P., 1976, Structure of Long Valley caldera, California, from a seismic refraction experiment: Journal of Geophysical Research, v. 81, p. 745–753, doi:10.1029/JB081i005p00745. [2] [7] [8]
- Hill, D.P., and Pakiser, 1966, Crustal structure between the Nevada Test Site and Boise, Idaho, from seismic refraction measurements, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: American Geophysical Union Geophysical Monograph 10, p. 391–420. [6]
- Hill, D.P., Kissling, E., Luetgert, H., and Kradolfer, U., 1985, Constraints on the upper crustal structure of the Long Valley–Mono Craters volcanic complex, eastern California, from seismic refraction measurements: Journal of Geophysical Research, v. 90, p. 11,135–11,150, doi:10.1029/JB090iB13p11135. [2] [8]
- Hill, M.N., 1952, Seismic refraction shooting in an area of the East Atlantic: Philosophical Transactions of the Royal Society of London, ser. A, v. 244 (890), p. 561–594. [2] [4] [5]
- Hill, M.N., ed., 1963a, The Sea vol. 3, The earth beneath the Sea: New York–London, Interscience Publ., 963 p. [2] [5] [6]
- Hill, M.N., ed., 1963b, Single ship seismic refraction shooting, in Hill, M.N., ed., The Sea vol. 3, The earth beneath the Sea: New York–London, Interscience Publ., p. 39–46. [5]
- Hill, N.M., and King, W.B.R., 1953, Seismic prospecting in the English Channel and its geological interpretation: Geological Society Quarterly Journal, v. 109 (pt. 1), p. 1–18. [2] [5]
- Hill, N.M., and Laughton, A.S., 1954, Seismic observations in the eastern Atlantic: Royal Society of London Proceedings, ser. A, v. 222, p. 348–356. [5]
- Hill, N.M., and Swallow, J.C., 1950, Seismic experiments in the Atlantic: Nature, v. 165, p. 193–194, doi:10.1038/165193c0. [2] [4]
- Hinz, K., 1969, The Great Meteor Seamount: Results of seismic reflection measurements with a pneumatic sound source, and their geological interpretation: Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin–Stuttgart, Reihe C Geologie und Geophysik, C2, 63–77. [6]
- Hinz, K., 1972, Results of seismic refraction investigations (project ANNA) in the western Mediterranean Sea, south and north of the island of Mallorca, in Leenhardt, O., Gobert, B., Hinz, K., Hirn, A., Hirschleber, H., Hsü, H.J., Refubatti, A., Rudant, J.-P., Rudloff, R., Ryan, W.B.F., Snoek, M., and Steinmetz, L., Results of the Anna cruise—three north-south seismic profiles through the western Mediterranean Sea: Bulletin du Centre Recherches Pau–SNPA, v. 6, p. 405–426. [7]
- Hinz, K., Seibold, E., and Wissmann, G., 1974, Continental slope anticline and unconformities off West Africa: Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin–Stuttgart, Reihe C Geologie und Geophysik, C17, p. 67–73. [2] [7]
- Hinz, K., Makris, J., Weigel, W., and Wissmann, G., 1977, Seismic studies in the Cretan sea, 4. Synoptic considerations and their geotectonic implications: Meteor Forschungsergebnisse, Deutsche Forschungsgemeinschaft, Borntraeger, Berlin–Stuttgart, Reihe C Geologie und Geophysik, C27, p. 44–45. [7]
- Hinz, K., Neben, S., Schreckenberger, B., Roeser, H.A., Block, M., Goncalves de Sousa, K., and Meyer, H., 1999, The Argentine continental margin north of 48°S: sedimentary successions, volcanic activity during breakup: Marine Petrology and Geology, v. 16, p. 1–25, doi:10.1016/S0264-8172(98)00060-9. [9]
- Hirn, A., and Perrier, G., 1974, Deep seismic sounding in the Limagnegraben, in Illies, J.H., and Fuchs, K., eds., Approaches to taphrogenesis: Stuttgart, Schweizerbart, p. 329–340. [7]
- Hirn, A., and Sapin, M., 1976, La crouute terrestre sous la Corse: données sismiques: Bulletin de la Société Géologique de France, v. 18, p. 1195–1199. [7]
- Hirn, A., and Sapin, M., 1984, The Himalayan zone of crustal interaction: suggestions from explosion seismology: Ann. Geophys., v. 2, p. 123–130. [2] [8]
- Hirn, A., Kind, R., Steinmetz, L., and Fuchs, K., 1973, Long-range profiles in Western Europe: II. Fine structure of the lower lithosphere in France (southern Bretagne): Zeitschrift für Geophysik, v. 39, p. 363–384. [2] [7]
- Hirn, A., Prodehl, C., and Steinmetz, L., 1975, An experimental test of models of the lower lithosphere in Bretagne (France): Ann. Géophys., v. 31, p. 517–530. [2] [7]
- Hirn, A., Steinmetz, L., and Sapin, M., 1977, A long range seismic profile in the western Mediterranean basin: structure of the upper mantle: Ann. Géophys., v. 33, p. 373–384. [2] [7]
- Hirn, A., Daignières, M., Gallart, J., and Vadell, M., 1980, Explosion seismic sounding of throws and dips in the continental Moho: Geophysical Research Letters, v. 7, p. 263–266, doi:10.1029/GL007i004p00263. [7]
- Hirn, A., Jobert, G., Wittlinger, G., Xin, X-Z., and Yuan, G-E., 1984a, Main features of the upper lithosphere in the unit between the High Himalayas and the Yarlung Zangbo Jiang suture: Ann. Geophys., v. 2, p. 113–118. [8]
- Hirn, A., Lepine, J-C., Jobert, G., Sapin, M., Wittlinger, G., Xin, X-Z., Yuan, G-E., Jing, W-X., Wen, T-J., Bai, X-S., Pandey, M.R., and Tater, J.M., 1984b, Crustal structure and variability of the Himalayan border of Tibet: Nature, v. 307 (no. 5946), p. 23–25, doi:10.1038/307023a0. [8] [9]
- Hirn, A., Nercessian, A., Sapin, M., Jobert, G., Xin, X-Z., Yuan, W-X., and Wen, T-J., 1984c, Lhasa block and bordering sutures—a continuation of a 500-km Moho traverse through Tibet: Nature, v. 307 (no. 5946), p. 25–27, doi:10.1038/307025a0. [8] [9]
- Hirn, A., Jiang, M., Sapin, M., et al., 1995, Seismic anisotropy as an indicator of mantle flow beneath the Himalayas and Tibet: Nature, v. 375, p. 571–574, doi:10.1038/375571a0. [9]
- Hirn, A., Sachpazi, M., Sliqi, R., McBride, J.H., Marnelis, F., Cernobori, L., and STREAMERS-PROFILES Group, 1996, A traverse of the Ionian islands front with coincident normal incidence and wide-angle seismics: Tectonophysics, v. 264, p. 35–49, doi:10.1016/S0040-1915(96)00116-3. [2] [19]
- Hirsch, K.K., Bauer, K., and Scheck-Wenderoth, M., 2009, Deep structure of the western South African passive margin—Results of a combined approach of seismic, gravity and isostatic investigations: Tectonophysics, v. 470, no. 1–2, p. 57–70, doi:10.1016/j.tecto.2008.04.028. [2] [10]
- Hirschleber, H., Rudloff, R., and Snoek, M., 1972, Preliminary results of seismic measurements in the Gulf of Lion, in Leenhardt, O., Gobert, B., Hinz, K., Hirn, A., Hirschleber, H., Hsü, H.J., Refubatti, A., Rudant, J.-P., Rudloff, R., Ryan, W.B.F., Snoek, M., and Steinmetz, L., eds., Results of the Anna cruise—three north-south seismic profiles through the western Mediterranean Sea: Bulletin du Centre Recherches Pau–SNPA, v. 6, p. 373–381. [7]
- Hirschleber, H.B., Lund, C.-E., Meissner, R., Vogel, A., and Weinrebe, W., 1975, Seismic investigations along the “Blue Road” traverse: Journal of Geophysics, v. 41, p. 135–148. [2] [7]
- Hobson, G.D., 1967, Hudson Bay crustal seismic experiment: time and distance data: Canadian Journal of Earth Science, v. 4, p. 879–899. [2] [6]
- Hochstein, M.P., 1968, Seismic measurements in the Cook Islands, Southwest Pacific Ocean: New Zealand Journal of Geology and Geophysics, v. 10 (6), p. 1499–1526. [2] [6]
- Hodgson, E.A., 1942, Velocity of elastic waves and structure of the crust in the vicinity of Ottawa, Canada: Bulletin of the Seismological Society of America, v. 32, p. 249–255. [4]
- Hodgson, J., 2001, A seismic and gravity study of the Leinster Granite: SE Ireland [unpublished Ph.D. thesis]: Dublin Institute for Advanced Studies, Ireland. [8] [9]
- Hodgson, J.A., Readman, P.W., O'Reilly, B.M., Kennan, P., Harder, S., Keller, R., and Thybo, H., 2000, Leinster Granite Seismic Project (LEGS): Preliminary Results of a Geophysical Study, in Jacob, A.W.B., Bean, C.J., and Jacob, S.T.F., eds., Proceedings of the 1999 CCSS Workshop, Dublin 1999, Communications of the Dublin Institute for Advanced Studies, Series D, Geophysics Bulletin, v. 49, p. 80–81. [2] [9]
- Hodgson, J.H., 1947, Analysis of traveltimes from rockbursts at Kirkland Lake, Ontario: Bulletin of the Seismological Society of America, v. 37, p. 5–17. [2] [4]
- Hodgson, J.H., 1953, A seismic survey in the Canadian Shield, I, II, Dominion Observ. Pub., Ottawa, 16, p. 113–163; 169–181. [2] [4] [5] [6]
- Hoffman, L.R., and Mooney, W.D., 1983, A seismic study of Yucca Mountain and vicinity, southern Nevada: data report and preliminary results: U.S. Geological Survey Open-File Report 83-588, 50 p. [2] [8] [9]
- Holbrook, W.S., 1990, The crustal structure of the northwestern Basin and Range province, Nevada, from wide-angle seismic data: Journal of Geophysical Research, v. 95, p. 21,843–21,869, doi:10.1029/JB095iB13p21843. [8]
- Holbrook, W.S., and Mooney, W.D., 1987, The crustal structure of the axis of the Great Valley, California, from seismic refraction measurements, in Asano, S., and Mooney, W.D., eds., Seismic studies of the continental lithosphere: Tectonophysics, v. 140, p. 49–63. [8]
- Holbrook, W.S., Gajewski, D., Krammer, A., and Prodehl, C., 1988, An interpretation of wide-angle shear-wave data in Southwest Germany: Poisson's

- ratio and petrological implications: *Journal of Geophysical Research*, v. 93, p. 12,081–12,106, doi:10.1029/JB093iB10p12081. [8]
- Holbrook, W.S., Mooney, W.D., and Christensen, N.I., 1992a, The seismic velocity structure of the deep continental crust, in Fountain, D.M., Arculus, R., and Kay, R.W., eds., *Continental lower crust: Development in Geotectonics*: Amsterdam, Elsevier, v. 23, p. 1–43. [2] [8]
- Holbrook, W.S., Purdy, G.M., Collins, J.A., Sheridan, R.E., Musser, D.L., Glover, I.L., Talwani, M., Ewing, J.I., Hawman, R., and Smithson, S., 1992b, Deep velocity structure of rifted continental crust, U.S. Mid-Atlantic margin, from EDGE wide-angle reflection/refraction data: *Geophysical Research Letters*, v. 19, p. 1699–1702, doi:10.1029/92GL01799. [2] [8] [9]
- Holbrook, W.S., Reiter, E.C., Purdy, G.M., and Toksöz, M.N., 1992c, Image of the Moho across the continent-ocean transition, U.S. east coast: *Geology*, v. 20, p. 203–206, doi:10.1130/0091-7613(1992)020<0203:IOTMAT>2.3.CO;2. [8]
- Holbrook, W.S., Lizarralde, D., McGeary, S., Diebold, J., Bangs, N., and Klemperer, S.L., 1994a, Wide-angle ocean-bottom seismic data from the Aleutian Arc: Preliminary results of the 1994 Survey (abst): *Eos (Transactions, American Geophysical Union)*, v. 75, no. 44, p. 643. [9]
- Holbrook, W.S., Purdy, G.M., Sheridan, R.E., Glover, L., Talwani, M., Ewing, J., and Hutchinson, D., 1994b, Seismic structure of the U.S. Mid-Atlantic continental margin: *Journal of Geophysical Research*, v. 99, p. 17,871–17,891, doi:10.1029/94JB00729. [9]
- Holbrook, W.S., Reiter, E.C., Purdy, G.M., Sawyer, D., Stoffa, P.L., Austin, J.A., Oh, J., and Makris, J., 1994c, Deep structure of the U.S. Atlantic continental margin, offshore South Carolina, from coincident ocean bottom and multichannel seismic data: *Journal of Geophysical Research*, v. 99, p. 9155–9178, doi:10.1029/93JB01821. [8]
- Holbrook, W.S., Brocher, T.M., ten Brink, U.S. and Hole, J.A., 1996, Crustal structure of a transform plate boundary: San Francisco Bay and the central California continental margin: *Journal of Geophysical Research*, v. 101, p. 22,311–22,334, doi:10.1029/96JB01642. [9]
- Holder, A.P., and Bott, M.H.P., 1971, Crustal structure in the vicinity of Southwest England: *Geophysical Journal of the Royal Astronomical Society*, v. 23, p. 465–489. [6]
- Hole, J.A., 1992, Nonlinear high-resolution three-dimensional seismic travel time tomography: *Journal of Geophysical Research*, v. 97, p. 6553–6562, doi:10.1029/92JB00235. [2] [9] [10]
- Hole, J.A., and Zelt, B.C., 1995, 3-D finite-difference reflection traveltimes: *Geophysical Journal International*, v. 121, p. 427–434, doi:10.1111/j.1365-246X.1995.tb05723.x. [2] [9] [10]
- Hole, J.A., Brocher, T.M., Klemperer, S.L., Parsons, T., Benz, H.M., and Furlong, K.P., 2000, Three-dimensional seismic velocity structure of the San Francisco Bay area: *Journal of Geophysical Research*, v. 105, p. 13,859–13,874, doi:10.1029/2000JB000083. [9]
- Hole, J.A., Catchings, R.D., Clair, K.C.S., Rymer, M.J., Okaya, D.A., and Carney, B.J., 2001, Steep-dip seismic imaging of the shallow San Andreas fault near Parkfield: *Science*, v. 294, p. 1513–1515, doi:10.1126/science.1065100. [10]
- Hole, J.A., Zelt, C.A., and Pratt, R.G., 2005, Advances in controlled-source seismic imaging: *Eos (Transactions, American Geophysical Union)*, v. 86, p. 177 and 181. [9] [10]
- Hole, J.A., Ryberg, T., Fuis, G.S., Bleibinhaus, F., and Sharma, A.K., 2006, Structure of the San Andreas fault zone at SAFOD from a seismic refraction survey: *Geophysical Research Letters*, v. 33, L07312, doi:10.1029/2005GL025194. [2][10]
- Holliger, K., and Klemperer, S.L., 1990, Gravity and deep seismic reflection profiles across the North Sea rifts, in Blundell, D.J., and Gibbs, A., eds., *Tectonic evolution of the North Sea rifts*: Oxford University Press, p. 78–96. [2] [8]
- Hooft, E.E.E., Detrick, R.S., and Kent, G.M., 1997, Seismic structure and indicators of magma budget along the southern East Pacific Rise: *Journal of Geophysical Research*, v. 102, p. 27319–27340, doi:10.1029/97JB02349. [9]
- Hooft, E.E.E., Detrick, R.S., Toomey, D.R., Collins, J.A., and Lin, J., 2000, Crustal thickness and structure along three contrasting spreading segments of the Mid-Atlantic Ridge, 33.5°–35°N: *Journal of Geophysical Research*, v. 105, p. 8205–8226, doi:10.1029/1999JB900442. [2] [9]
- Hopkins, W., 1848, Report of the British Association for the Advancement of Science, Oxford, June 1847, London (1848), part II, sec. 2, p. 33. [3]
- Hopper, J.R., Funck, T., Tucholke, B.E., Louden, K.E., Holbrook, W.S., and Larsen, H.C., 2006, A deep seismic investigation of the Flemish Cap margin: implications for the origin of deep reflectivity and evidence for asymmetric break-up between Newfoundland and Iberia: *Geophysical Journal International*, v. 164, p. 501–515, doi:10.1111/j.1365-246X.2006.02800.x. [9]
- Horsefield, S.J., Whitmarsh, R.B., White, R.S., and Sibuet, J.-C., 1994, Crustal structure of the Goban Spur rifted continental margin, NE Atlantic: *Geophysical Journal International*, v. 119, p. 1–19, doi:10.1111/j.1365-246X.1994.tb00909.x. [2] [8]
- Horvath, F., Bada, G., Szafian, P., Tari, G., Adam, A., and Cloetingh, S., 2006, Formation and deformation of the Pannonian basin: constraints from observational data, in Gee, D.G., and Stephenson, R.A., eds., *European lithosphere dynamics: Geological Society of London Memoir* 32, p. 191–206. [9]
- Hosford, A., Lin, J., and Detrick, R.S., 2001, Crustal evolution over the last 2 m.y. at the Mid-Atlantic Ridge OH-1 segment, 35°N: *Journal of Geophysical Research*, v. 106, p. 13,269–13,285, doi:10.1029/2001JB000235. [9]
- Houtz, R., 1976, Seismic properties of layer 2A in the Pacific: *Journal of Geophysical Research*, v. 81, p. 6321–6331, doi:10.1029/JB081i035p06321. [7]
- Houtz, R., and Ewing, J., 1976, Upper crustal structure as a function of plate age: *Journal of Geophysical Research*, v. 81, p. 2490–2498, doi:10.1029/JB081i014p02490. [7]
- Houtz, R., Ewing, J., and Buhl, P., 1970, Seismic data from sonobuoy stations in the northern and equatorial Pacific: *Journal of Geophysical Research*, v. 75, no. 26, p. 5093–5111, doi:10.1029/JB075i026p05093. [2] [6]
- Howie, J.M., Miller, K.C., and Savage, W.U., 1993, Integrated crustal structure across the south central California margin: Santa Lucia escarpment to the San Andreas fault: *Journal of Geophysical Research*, v. 98, p. 8173–8196, doi:10.1029/93JB00025. [2] [8]
- Hrubcová, P., Šroda, P., Spicák, A., Guterník, A., Grád, M., Keller, G.R., Brueckl, E., and Thybo, H., 2005, Crustal and uppermost mantle structure of the Bohemian Massif based on CELEBRATION 2000 data: *Journal of Geophysical Research*, v. 110, B11305, doi:10.1029/2004JB003080. [9]
- Hu, H., Chen, X., Zhang, B., Song, W., Xiao, Z., and He, Z., 1988, Crustal structures along Suixian-Anyang DSS profile, in *Developments in the Research of Deep Structures of China's Continental Geological Publishing House*, Beijing, p. 48–60. [8]
- Hubbard, S.S., Coruh, C., and Costain, J.K., 1991, Paleozoic and Grenvillian structures in the southern Appalachians: extended interpretation of seismic reflection data: *Tectonics*, v. 10, p. 141–170, doi:10.1029/90TC01854. [8]
- Hübscher, C., Gohl, K., and Thorwart, M., 2003, Refraction seismics, in Pätzold, J., Bohrmann, G., and Hübscher, C., eds., *Black Sea–Mediterranean–Red Sea: Berichte M52*, no. 03-2, part 2. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, p. 2–6–2–8. [2] [10]
- Hughes, S., and Luetgert, J.H., 1991, Crustal structure of the western New England Appalachians and the Adirondack Mountains: *Journal of Geophysical Research*, v. 96, p. 16,471–16,494, doi:10.1029/91JB01657. [2] [8]
- Hughes, S., and Luetgert, J.H., 1992, Crustal structure of the southeastern Grenville province, northern New York state and eastern Ontario: *Journal of Geophysical Research*, v. 97, p. 17,455–17,479, doi:10.1029/92JB01793. [9]
- Hughes, S., Hall, J., and Luetgert, J.H., 1994, The seismic velocity structure of the Newfoundland Appalachian orogen: *Journal of Geophysics Research*, v. 99, p. 13,663–13,653, doi:10.1029/94JB00653. [8]
- Husebye, E.S., Ro, H.E., Kinck, J.J., and Larsson, F.R., 1988, Tectonic studies in the Skagerrak province: the “MOBIL Search” cruise: *Norges Geologisk Undersøkelse Special Publication* 3, p. 14–20. [9]
- Hussenöder, S.A., Collins, J.A., Kent, G.M., Detrick, R.S., and the TERA Group, 1996, Seismic analysis of the axial magma chamber reflector along the southern East Pacific Rise from conventional reflection profiling: *Journal of Geophysical Research*, v. 101, p. 22087–22105, doi:10.1029/96JB01907. [9]
- Hussong, D.M., Edwards, P.B., Johnson, S.H., Campbell, J.F., and Sutton, G.H., 1976, Crustal structure of the Peru-Chile trench between 8° and 12°S latitude, in Sutton, G.H., Manghnani, M.H., Moberly, R., and McAfee, E.U., eds., *The geophysics of the Pacific Ocean basin and its margin: American Geophysical Union, Geophysical Monograph* 19, p. 71–85. [2] [7]
- Hutchins, K., 1969, Arctic geophysics: Arctic, v. 22, no. 3, p. 225–232. [6]
- Hutchinson, D.R., Grow, J.A., Klitgord, K.D., and Detrick, R.S., 1986, Moho reflections from the Long Island Plateau, eastern United States, in Barazangi, M., and Brown, L., eds., *Reflection seismology: the continental*

- crust: American Geophysical Union, Geodynamics Series, v. 14, p. 173–187. [2] [7] [8]
- Hutchinson, D.R., Trehearne, A.M., and Klitgord, K.D., 1987, Structure of the lower crust beneath the Gulf of Maine: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 189–194. [2] [8]
- Hyndman, R.D., Wang, K., and Yamano, M., 1995, Thermal constraints on the seismogenic portion of the southwestern Japan subduction thrust: *Journal of Geophysical Research*, v. 100, p. 15,373–15,392, doi:10.1029/95JB00153. [9]
- Hynes, A., and Ludden, J.N., eds., 2000, The Lithoprobe Abitibi-Grenville Transect: *Canadian Journal of Earth Science*, v. 37, p. 115–516. [9]
- Ibs-von Seht, M., Blumenstein, S., Wagner, R., Hollnack, D., and Wohlenberg, J., 2001, Seismicity, seismotectonics and crustal structure of the southern Kenya rift—new data from the Lake Magadi area: *Geophysical Journal International*, v. 146, p. 439–453, doi:10.1046/j.0956-540x.2001.01464.x. [9]
- Iidaka, T., Takeda, T., Kurashimo, E., Kawamura, T., Kaneda, Y., and Iwasaki, T., 2004, Configuration of subducting Philippine Sea plate and crustal structure in the central Japan region: *Tectonophysics*, v. 388, p. 7–20, doi:10.1016/j.tecto.2004.07.002. [2] [10]
- Iidaka, T., Kato, A., Kurashimo, E., Iwasaki, T., Hirata, N., Katao, H., Hirose, I., and Miyamachi, H., 2009, Fine structure of P-wave velocity distribution along the Atotsugawa fault, central Japan: *Tectonophysics*, v. 472, p. 95–104, doi:10.1016/j.tecto.2008.06.016. [10]
- Ikami, A., 1978, Crustal structure in the Shizuoka district, central Japan as derived from explosion seismic observations: *Journal of the Physics of the Earth*, v. 26, p. 299–331. [2] [7]
- Ikami, A., Ito, K., Sasaki, Y., and Asano, S., 1982, Crustal structure in the profile across Shikoku, Japan, as derived from the off Sakaide explosions (in Japanese with English abstract): *Journal of the Seismological Society of Japan*, v. 35, p. 367–375. [2] [7] [9]
- Ikami, A., Yoshii, T., Kubota, S., Sasaki, Y., Hasemi, A., Moriya, T., Miyamachi, H., Matsuzawa, R.S., and Wada, K., 1986, A seismic refraction profile in and around Nagano Prefecture, central Japan: *Journal of the Physics of the Earth*, v. 34, p. 457–474. [2] [8]
- Ikeda, Y., Iwasaki, T., Sato, H., Matsuta, N., and Kozawa, T., 2004, Seismic reflection profiling across the Itoigawa-Shizuoka Tectonic Line at Matsumoto, central Japan: *Earth, Planets, and Space*, v. 56, p. 1315–1321. [10]
- Ikeda, Y., Iwasaki, T., Kano, K., Ito, T., Sato, H., Tajikara, M., Kikuchi, S., Higashinaka, M., Kozawa, T., and Kawanaka, T., 2009, Active nappe with a high slip late: Seismic and gravity profiling across the southern part of the Itoigawa-Shizuoka Tectonic Line, central Japan: *Tectonophysics*, v. 472, p. 72–85, doi:10.1016/j.tecto.2008.04.008. [10]
- ILIHA DSS Group, 1993a, A deep seismic sounding investigation on lithospheric heterogeneity and anisotropy beneath the Iberian Peninsula, in Badal, J., Gallart, J., and Paulissen, H., eds., *Seismic studies of the Iberian Peninsula*: *Tectonophysics*, v. 221, p. 35–51. [2] [8]
- ILIHA DSS Group, 1993b, A deep seismic sounding investigation of lithospheric heterogeneity and anisotropy beneath the Iberian Peninsula, in Mezcua, J., and Carreño, E., eds., *Iberian lithosphere, heterogeneity and anisotropy (ILIHA)*: Monografía no. 10, Instituto Geográfico Nacional, Madrid, Spain, p. 105–127. [8]
- Illies, J.H., and Mueller, S., eds., 1970, *Graben problems*: Stuttgart, Schweizerbart, 316 p. [7]
- Italian Explosion Seismology Group and Institute of Geophysics, ETH Zurich, 1981, Crust and upper mantle structures in the Southern Alps from deep seismic sounding profiles (1977, 1978) and surface wave dispersion analysis: *Bollettino di Geofisica Teorica e Applicata*, v. 92, p. 297–330. [7]
- Ito, K., Umeda, Y., Sato, H., Hirata, N., Kawanaka, T., and Ikawa, T., 2006, Deep seismic surveys in the Kinki district: Shingu-Maizuru line: *Bulletin of the Earthquake Research Institute, University of Tokyo*, v. 81, p. 239–245. [10]
- Ito, T., 2000, Crustal structure of the Hidaka collision zone and its foreland fold-and-thrust belt, Hokkaido, Japan: *Journal of the Japanese Association of Petroleum Technology*, v. 65, p. 103–119 (in Japanese with English abstract). [2] [9]
- Ito, T., 2002, Active faulting, lower crustal delamination and ongoing Hidaka arc-arc collision, Hokkaido, Japan, in Fujinawa, Y., and Yoshida, A., eds., *Seismotectonics in convergent plate boundary*: Tokyo, Terrapub, p. 219–224. [2] [9]
- Ito, T., Iwasaki, T., and Thybo, H., eds., 2009a, Deep seismic profiling of the continents and their margins: v. 472, p. 1–341. [2] [10]
- Ito, T., Kojima, Y., Kodaira, S., Sato, H., Kaneda, Y., Iwasaki, T., Kurashimo, E., Tsumura, N., Fujiwara, A., Miyauchi, T., Hirata, N., Harder, S., Miller, K., Murata, A., Yamakita, S., Onishi, M., Abe, S., Sato, T., and Ikawa, T., 2009b, Crustal structure of southwest Japan, revealed by the integrated seismic experiment southwest Japan 2002: *Tectonophysics*, v. 472, p. 124–134, doi:10.1016/j.tecto.2008.05.013. [10]
- Ivandic, M., Grevemeyer, I., Bialas, J., and Petersen, C.J., 2010, Serpentinitization in the trench–outer rise region offshore of Nicaragua: constraints from seismic refraction and wide-angle data: *Geophysical Journal International*, v. 180, p. 1253–1264, doi:10.1111/j.1365-246X.2009.04474.x. [2] [10]
- Iwasaki, T., Shiobara, H., Nishizawa, A., Kanazawa, T., Suyehiro, K., Hirata, N., Urabe, T., and Shimamura, H., 1989, A detailed subduction structure in the Kuril trench deduced from ocean bottom seismographic refraction studies: *Tectonophysics*, v. 165, p. 315–336, doi:10.1016/0040-1951(89)90056-5. [8]
- Iwasaki, T., Hirata, N., Kanazawa, T., Melles, J., Suyehiro, K., Urabe, T., Moller, L., Makris, J., and Shimamura, H., 1990, Crustal and upper mantle structure in the Ryukyu Island Arc deduced from deep seismic sounding: *Geophysical Journal International*, v. 102, p. 631–651, doi:10.1111/j.1365-246X.1990.tb04587.x. [8]
- Iwasaki, T., Yoshii, T., Moriya, T., Kobayashi, A., Nishiwaki, M., Tsutsui, T., Iidaka, T., Ikami, A., and Masuda, T., 1993, Seismic refraction study in the Kitakami region, northern Honshu, Japan: *Journal of the Physics of the Earth*, v. 41, p. 165–188. [9]
- Iwasaki, T., Yoshii, T., Moriya, T., Kobayashi, A., Nishiwaki, M., Tsutsui, T., Iidaka, T., Ikami, A., and Masuda, T., 1994, Precise P and S wave velocity structures in the Kitakami massif, northern Honshu, Japan, from a seismic refraction experiment: *Journal of Geophysical Research*, v. 99, p. 22187–22204. [2] [8] [9]
- Iwasaki, T., Ozel, O., Moriya, T., Sakai, S., Suzuki, S., Aoki, G., Maaeda, T., Iidaka, T., 1998, Lateral structural variation across a collision zone in central Hokkaido, Japan, as revealed by wide-angle seismic experiments: *Geophysical Journal International*, v. 132, p. 435–457, doi:10.1046/j.1365-246X.1998.00454.x. [2] [8] [9]
- Iwasaki, T., Kato, W., Abe, S., Ichinose, Y., Umino, N., Okada, T., Koshiya, S., Kosuga, M., Saka, M., Sato, H., Shimizu, N., Takeda, T., Tsumura, N., Noda, K., Hasegawa, A., Hirata, N., Watanabe, K., Ikawa, T., and Ohguchi, T., 1999, Seismic refraction observations at the Sen'ya fault zone, northern Honshu, Japan: *Bulletin of the Earthquake Research Institute, University of Tokyo*, v. 74, p. 49–62 (in Japanese). [9]
- Iwasaki, T., Kato, W., Moriya, T., Hasemi, A., Umino, N., Okada, T., Miyashita, T., Mizogami, T., Takeda, T., Sekine, S., Matsushima, T., Tashiro, K., and Miyamachi, H., 2001a, Extensional structure in northern Honshu arc as inferred from seismic refraction/wide-angle reflection profiling: *Geophysical Research Letters*, v. 28, no. 12, p. 2329–2332, doi:10.1029/2000GL012783. [2] [9]
- Iwasaki, T., Sato, H., Hirata, N., Ito, T., Moriya, T., Kurashimo, E., Kawanaka, T., Kozawa, T., Ichinose, Y., Saka, M., Takeda, T., Kato, W., Yoshikawa, T., Arita, K., Takanami, T., Yamamoto, A., Yoshii, T., and Ikawa, T., 2001b, Seismic reflection experiment in the northern part of the Hidaka collision zone, Hokkaido, Japan: *Bulletin of the Earthquake Research Institute, University of Tokyo*, v. 76, p. 115–127 (in Japanese). [9]
- Iwasaki, T., Yoshii, T., Ito, T., Sato, H., and Hirata, N., 2002, Seismological features of island arc crust as inferred from recent seismic expeditions in Japan: *Tectonophysics*, v. 355, p. 53–66, doi:10.1016/S0040-1951(02)00134-8. [2] [9]
- Iwasaki, T., Adachi, K., Moriya, T., Miyamachi, H., Matsushima, T., Miyashita, K., Takeda, T., Taira, T., Yamada, T., and Ohtake, K., 2004, Upper and middle crustal deformation of an arc–arc collision across Hokkaido, Japan, inferred from seismic refraction/wide-angle reflection experiments: *Tectonophysics*, v. 388, p. 59–73, doi:10.1016/j.tecto.2004.03.025. [2] [9]
- Iyer, H.M., Pakiser, L.C., Stuart, D.J., and Warren, D.H., 1969, Project Early Rise: seismic probing of the upper mantle: *Journal of Geophysical Research*, v. 74, p. 4409–4441, doi:10.1029/JB074i017p04409-02. [2] [6] [7]
- Jackson, H.R., Forsyth, D.A., and Johnson, G.L., 1986, Oceanic affinities of the Alpha Ridge, Arctic Ocean: *Marine Geology*, v. 73, p. 237–261, doi:10.1016/0025-3227(86)90017-4. [8]
- Jackson, W.H., and Pakiser, L.C., 1965, Seismic study of crustal structure in the southern Rocky Mountains: U.S. Geological Survey Professional Paper 525-D, p. 85–92. [6]

- Jackson, W.H., Stewart, S.W., and Pakiser, L.C., 1963, Crustal structure in eastern Colorado from seismic refraction measurements: *Journal of Geophysical Research*, v. 68, p. 5777–5787. [2] [6]
- Jacob, A.W.B., 1975, Dispersed shots at optimum depth—an efficient seismic source for lithospheric studies: *Journal of Geophysics*, v. 41, p. 63–70. [7]
- Jacob, A.W.B., and Willmore, P.L., 1972, Teleseismic P waves from a 10 ton explosion: *Nature*, v. 236, p. 305, doi:10.1038/236305a0. [7]
- Jacob, A.W.B., Kamiński, W., Murphy, T., Phillips, W.E.A., and Prodehl, C., 1985, A crustal model for a northeast-southwest profile through Ireland: *Tectonophysics*, v. 113, p. 75–103, doi:10.1016/0040-1951(85)90111-8. [2] [8]
- Jacob, A.W.B., Bean, C.J., Nolte, B., and Prodehl, C., 1991, P-wave sections in a realistic anisotropic lithosphere: *Geophysical Journal International*, v. 107, p. 709–714, doi:10.1111/j.1365-246X.1991.tb01430.x. [8]
- Jacob, A.W.B., Vees, R., Braile, L.W., and Criley, E., 1994, Optimization of wide-angle seismic signal-to-noise ratios and P-wave transmission in Kenya, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., *Crustal and upper mantle structure of the Kenya rift*: *Tectonophysics*, v. 236, p. 61–79. [9]
- Jacob, A.W.B., Delvaux, D., and Khan, M.A., eds., 1997, *Lithospheric structure, evolution and sedimentation in continental rifts*. Proceedings of the IGCP 400 Meeting, Dublin, Ireland: Communications of the Dublin Institute for Advanced Studies, Series D, *Geophysical Bulletin*, v. 48, p. 172 p. [2] [9] [10]
- Jacob, A.W.B., Bean, C.J., and Jacob, S.T.F., eds., 2000, *Active and passive seismic techniques reviewed*. Proceedings of the 1999 CCSS Workshop, Dublin, Ireland: Communications of the Dublin Institute for Advanced Studies, Series D, *Geophysical Bulletin*, v. 49: 117 p. [2] [3] [9] [10]
- Jacobson, R.S., Shor, G.G. Jr., Kieckhefer, R.M., and Pudy, G.M., 1979, Seismic refraction and reflection studies in the Timor-Aru Trough system and Australian continental shelf, in Watkins, J.S., Montadert, L., and Dickerison, P., eds., *Geological and Geophysical Investigations of Continental Margins*: American Association of Petroleum Geologists Memoir 29, p. 209–222. [2] [7]
- Jacoby, W., Björnsson, A., and Möller, D., eds., 1980, Iceland: Evolution, active tectonic, and structure: *Journal of Geophysics*, v. 47, p. 1–277. [2]
- Jaiswal, P., Zelt, C.A., Bally, A.W., and Dasgupta, R., 2008, 2-D traveltime and waveform inversion for improved seismic imaging: Naga thrust and fold belt, India: *Geophysical Journal International*, v. 173, p. 642–658, doi:10.1111/j.1365-246X.2007.03691.x. [2] [10]
- James, D.E., and Steinhart, J.S., 1966, Structure beneath continents: a critical review of explosion studies from 1960–1965, in Steinhart, J.S., and Smith, T.J., eds., *The earth beneath the continents*: American Geophysical Union, Washington, D.C., *Geophysical Monograph* 10, p. 293–333. [2] [6] [10]
- James, D.E., Smith, T.J., and Steinhart, J.S., 1968, Crustal structure of the middle Atlantic states: *Journal of Geophysical Research*, v. 73, p. 1983–2007, doi:10.1029/JB073i006p01983. [6] [8]
- Janik, T., 1997, Seismic crustal structure of the Bransfield Strait, West Antarctica: *Polish Polar Research*, v. 18, p. 171–225. [2] [8] [9]
- Janik, T., Yliniemi, J., Grad M., Thybo, H., Tiira, T., and POLONaise'97 Working Group, 2002, Crustal structure across the TESZ along POLONaise'97 seismic profile P2 in NW Poland: *Tectonophysics*, v. 360, p. 129–152, doi:10.1016/S0040-1951(02)00353-0. [9]
- Janik, T., Grad M., Gutserch A., Dadlez, R., Yliniemi, J., Tiira, T., Keller G.R., Gaczynski, E., and CELEBRATION 2000 Working Group, 2005, Lithospheric structure of the Trans-European Suture Zone along the TTZ-CEL03 seismic transect (from NW to SE Poland): *Tectonophysics*, v. 411, p. 129–156, doi:10.1016/j.tecto.2005.09.005. [9]
- Janik, T., Sroda, P., Grad M., and Gutserch A., 2006, Moho depth along the Antarctic Peninsula and crustal structure across the landward projection of the Hero Fracture Zone, in Fütterer, D.K., Damaschke, D., Kleinschmidt, G., Miller, H., and Tessensohn, F., eds., *Antarctica: contributions to global earth sciences*: Berlin-Heidelberg-New York, Springer, p. 229–236. [9]
- Jarchow, C.M., 1991, Investigations of magmatic underplating beneath the northwestern Basin and Range province, Nevada, seismic data acquisition and tectonic problems of the Columbia plateau, Washington, and the nature of the Mohorovičić discontinuity worldwide [Ph.D. thesis]: Department of Geophysics, Stanford University, Stanford, California, Chapter 2: The nature of the Mohorovičić discontinuity, p. 2,01–2,53. [3]
- Jeffreys, H., 1926, On near earthquakes: *Monthly Notices of the Royal Astronomical Society, Geophysics Supplement*, v. 1, p. 385–402. [3]
- Jeffreys, H., 1929, *The Earth: Its origin, history and physical constitution*: Cambridge University Press, England, 346 p. [3]
- Jeffreys, H., 1947, On the Burton-on-Trent explosion of 1944 November 27: *Monthly Notices of the Royal Astronomical Society, Geophysics Supplement*, v. 5, p. 99–104. [4]
- Jensen, L.W., Steiner, D., Brown, L.D., Kaufman, S., and Oliver, J.E., 1979, COCORP deep crustal seismic reflection studies in the Michigan basin: *Michigan Basin Geological Society Symposium*, 16. [2] [7]
- Jentsch, M., 1979, Reinterpretation of a Deep-Seismic-Sounding profile on the Ukrainian Shield: *Journal of Geophysics*, v. 45, p. 355–372. [6]
- Jentsch, M., Bamford, D., Emter, D., and Prodehl, C., 1982, A seismic-refraction investigation of the basement structure in the Urach geothermal anomaly, southern Germany, in Haenel, R. ed., *The Urach geothermal project (Swabian Alb, Germany)*: Stuttgart, Schweizerbart, p. 231–245. [2] [7]
- Jiang, M., Galvē, A., Hirn, A., de Voogd, B., Laigle, M., Su, H.P., Diaz, J., Lépine, J.C., Wang, Y.X., 2006, Crustal thickening and variations in architecture from the Qaidam basin to the Qang Tang (North-Central Tibetan Plateau), from wide angle reflection seismology: *Tectonophysics*, v. 412, no. 3–4, p. 121–140, doi:10.1016/j.tecto.2005.09.011. [9]
- Jödicke, H., Üntiedt, J., Olgemann, W., Schulte, L., and Wagenitz, V., 1983, Electrical conductivity structure of the crust and upper mantle beneath the Rhensh Massif, in Fuchs, K., von Gehlen, K., Mälzer, H., Murawski, H., and Semmel, A., eds., *Plateau uplift: the Rhesh Massif—a case history*: Berlin-Heidelberg, Springer, p. 288–302. [8]
- Johnson, L.R., 1965, Crustal structure between Lake Mead, Nevada, and Mono Lake, California: *Journal of Geophysical Research*, v. 70, p. 2863–2872, doi:10.1029/JZ070i012p02863. [6]
- Johnson, S.H., and Couch, R.W., 1970, Crustal structure in the North Cascade Mountains of Washington and British Columbia from seismic refraction measurements: *Bulletin of the Seismological Society of America*, v. 60, p. 1259–1269. [6]
- Jones, E.J.W., 1999, *Marine Geophysics*: Chichester-New York, John Wiley and Sons Ltd., 466 p. [2] [5] [6] [8] [10]
- Joppen, M., and White, R.S., 1990, The structure and subsidence of Rockall Trough from two-ship seismic experiments: *Journal of Geophysical Research*, v. 95, p. 19821–19837, doi:10.1029/JB095iB12p19821. [2] [8]
- Josef, A., and Holtzscherer, J.J., 1953, Etudes des vitesses de propagation des ondes sismiques sur l'Inlandsis du Groenland: *Annals of Geophysics*, v. 9, p. 330–344. [5]
- Juhlin, C., Kashubin, S., Knapp, J.H., Makovsky, V., and Ryberg, T., 1995, Project conducts seismic reflection profiling in the Urals Mountains: *Eos (Transactions, American Geophysical Union)*, v. 76, p. 193–196, doi:10.1029/95EO00110. [9]
- Juhlin, C., Knapp, J.H., Kashubin, S., and Bliznetov, M., 1996, Crustal evolution of the Middle Urals based on seismic reflection and refraction data: *Tectonophysics*, v. 264, p. 21–34, doi:10.1016/S0040-1951(96)00115-1. [2] [9]
- Junger, A., 1951, Deep basement reflections in Big Horn County, Montana: *Geophysics*, v. 16, p. 499–505, doi:10.1190/1.1437698. [2] [4]
- Kaila, K.L., 1986, Tectonic framework of Narmada-Son lineament—a continental rift system in central India from deep seismic soundings, in Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, *Geodynamics Series*, 13, p. 133–150. [8]
- Kaila, K.L., Krishna, V.G., Chowdhury, K.R., and Narain, H., 1978, Structure of the Kashmir Himalaya from deep seismic soundings: *Journal of the Geological Society of India*, 19, p. 1–20. [2] [7]
- Kaila, K.L., Chowdhury, K.R., Reddy, P.R., Krishna, V.G., Hainarain, Subbotin, S.I., Sollogub, V.B., Chekunov, A.V., Kharechko, G.E., Lazarenko, M.A., and Ilchenko, T.V., 1979, Crustal structure along Kavali-Udipi profile in the Indian Peninsular shield from deep seismic soundings: *Journal of the Geological Society of India*, v. 20, p. 307–333. [2] [7]
- Kaila, K.L., Krishna, V.G., and Mall, D.M., 1981a, Crustal structure along Mehmabad-Billimora profile in the Cambay basin, India, from deep seismic soundings: *Tectonophysics*, v. 76, p. 99–130, doi:10.1016/0040-1951(81)90255-9. [2] [7] [8]
- Kaila, K.L., Murty, P.R.K., Rao, V.K., and Kharechko, G.E., 1981b, Crustal structure from deep seismic soundings along the Koyna II (Kelsi-Loni) profile in the Deccan trap area, India: *Tectonophysics*, v. 73, p. 365–384, doi:10.1016/0040-1951(81)90223-7. [2] [7]
- Kaila, K.L., Reddy, P.R., Dixit, M.M., and Koteswara, R.P., 1985, Crustal structure across the Narmada-Son lineament, central India, from deep seismic soundings: *Journal of the Geological Society of India*, v. 26, p. 465–480. [8]

- Kaila, K.L., Tewari, H.C., Chowdhury, K.R., Rao, V.K., Sridhar, A.R., and Mall, D.M., 1987a, Crustal structure of the northern part of the Proterozoic Cuddapah basin of India from deep seismic soundings and gravity data: *Tectonophysics*, v. 140, p. 1–12, doi:10.1016/0040-1951(87)90136-3. [8]
- Kaila, K.L., Tewari, H.C., and Mall, D.M., 1987b, Crustal structure and delineation of Gondwana basin in the Mahanadi delta area, India, from deep seismic soundings: *Journal of the Geological Society of India*, v. 29, p. 293–308. [8]
- Kaila, K.L., Murthy, P.R.K., Mall, D.M., Dixit, M.M., and Sarkar, D., 1987c, Deep seismic soundings along Hirapur-Mandla profile, central India: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 399–404. [8]
- Kaila, K.L., Murthy, P.R.K., Rao, V.K., and Venkateswarlu, N., 1990a, Deep seismic sounding in the Godavari graben and Godavari (coastal) basin, India: *Tectonophysics*, v. 173, p. 307–317, doi:10.1016/0040-1951(90)90226-X. [8]
- Kaila, K.L., Tewari, H.C., Krishna, V.G., Dixit, M.M., Sarkar, D., and Reddy, M.S., 1990b, Deep seismic sounding studies in the north Cambay and Sanchor basins, India: *Geophysical Journal International*, v. 103, p. 621–637, doi:10.1111/j.1365-246X.1990.tb05676.x. [8]
- Kaila, K.L., Reddy, P.R., Mall, D.M., Venkateswarlu, N., Krishna, V.G., and Prasad, A.S.S.R.S., 1992, Crustal structure of the west Bengal basin, India, from deep seismic sounding investigations: *Geophysical Journal International*, v. 111, p. 45–66, doi:10.1111/j.1365-246X.1992.tb00554.x. [8]
- Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., and Prasad, B.R., 1996, Structure of the crystalline basement in the West Bengal basin, India, as determined from DSS studies: *Geophysical Journal International*, v. 124, p. 175–188, doi:10.1111/j.1365-246X.1996.tb06362.x. [8]
- Kaminski, W., Bamford, D., Faber, S., Jacob, B., Nunn, K., Prodehl, C., 1976, A lithospheric seismic profile in Britain-II. Recording of a local earthquake: *Zeitschrift für Geophysik*, v. 42, p. 103–110. [7]
- Kan, R-J, Hu, H X, Zeng, R-S, Mooney, W.D., and McEvilly, T.V., 1986, Crustal structure of Yunnan province, China, from seismic refraction profiles: *Science*, v. 234, p. 433–437, doi:10.1126/science.234.4775.433. [2] [8]
- Kan, R., Hu, H., Zeng, R., Mooney, W.D., and McEvilly, T.V., 1988, Crustal structure and evolution of the Yunnan province, China, from seismic refraction profile, in *Developments in the Research of Deep Structures of China's Continent*: Geological Publishing House, Beijing, p. 267–276. [8]
- Kanasewich, E.R., 1966, Deep crustal structure under the plains and Rocky Mountains: *Canadian Journal of Earth Sciences*, v. 3, p. 937–946. [6]
- Kanasewich, E.R., and Cumming, G.L., 1965, Near-vertical incidence seismic reflections from the "Conrad" discontinuity: *Journal of Geophysical Research*, v. 70, p. 3441–3446, doi:10.1029/JZ070i014p03441. [2] [6]
- Kanasewich, E.R., Clowes, R.M., and McCloughan, C.H., 1969, A buried Precambrian rift in western Canada: *Tectonophysics*, v. 8, p. 513–527, doi:10.1016/0040-1951(69)90051-1. [6]
- Kanasewich, E.R., Hajnal, Z., Green, A.G., Cumming, G.L., Mereu, R.F., Clowes, R.M., Morel-a-l'Hussier, P., Chiu, S., Congram, A.M., Macrides, C.G., and Sharari, M., 1987, Seismic studies of the crust under the Wiliston Basin: *Canadian Journal of Earth Science*, v. 24, p. 2160–2171, doi:10.1139/e87-205. [7] [8]
- Kanasewich, E.R., Burianyk, M.J.A., Ellis, R.M., Clowes, R.M., White, D.J., Coté, T., Forsyth, D.A., Luettgert, J.H., and Spence, G.D., 1994, Crustal velocity structure of the Omineca belt, southeastern Canadian Cordillera: *Journal of Geophysical Research*, v. 99, p. 2653–2670, doi:10.1029/93JB03108. [8]
- Kanasewich, E.R., Burianyk, M.J.A., Dubuc, G.P., Lemieux, J.F., and Kalantzis, F., 1995, Three-dimensional seismic reflection studies of the Alberta Basement: *Canadian Journal of Exploration Geophysics*, v. 31, p. 1–10. [2] [9]
- Kane, M.F., and Pakiser, L.C., 1961, Geophysical study of subsurface structure in southern Owens Valley, California: *Geophysics*, v. 26, p. 12–26, doi:10.1190/1.1438835. [5]
- Kaneda, Y., Nishide, N., Sasaki, Y., Asano, S., Yoshii, T., Ichinose, Y., and Saka, M., 1979, Explosion seismic observation of reflected waves from the Mohorovičić discontinuity and crustal structure in western Kanto district: *Journal of the Physics of the Earth*, v. 27, p. 511–526. [2] [7]
- Kanestrom, R., and Haugland, K., 1971, Part II. Profile section 3-4 (Trans-Scandinavian Deep Sounding Project 1969), in *Deep seismic sounding* in Northern Europe: Swedish Natural Science Research Council (NFR), Stockholm, p. 76–91. [6]
- Kao, H., Gao, R., Rau, R.-J., Shi, D., Chen, R.-Y., Guan, T., and Wu, F.T., 2001, Seismic image of the Tarim basin and its collision with Tibet: *Geology*, v. 29, p. 575–578, doi:10.1130/0091-7613(2001)029<0575:SIOTTB>2.0.CO;2. [9]
- Karlstrom, K.E., and Keller, G.R., eds., 2005, *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, 441 p. [2] [6] [9]
- Karlstrom, K.E., Whitmeyer, S.J., Dueker, K., Williams, M.L., Bowring, S.A., Levander, A., Humphreys, E.D., Keller, G.R., and the CD-ROM Working Group, 2005, Synthesis of results from the CD-ROM experiment: 4-D image of the lithosphere beneath the Rocky Mountains and implications for understanding the evolution of continental lithosphere, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 421–441. [9]
- Kashubin, S., Juhlin, C., Friberg, M., Rybalka, A., Petrov, G., Kashubin, A., Bliznetsov, M., and Steer, D., 2006, Crustal structure of the Middle Urals based on seismic reflection data, in Gee, D.G., and Stephenson, R.A., eds., *European lithosphere dynamics*: Geological Society, London, Memoir 32, p. 427–442. [2] [9] [10]
- Kashubin, S., Tryggvason, A., Juhlin, C., Rybalka, A.V., Kashubina, T.V., and Shkred, I.G., 2009, The Krasnouralsky profile in the Middle Urals, Russia: a tomographic approach to vintage DSS data: *Tectonophysics*, v. 472, p. 249–263, doi:10.1016/j.tecto.2008.08.026. [9]
- Katz, S., 1955, Seismic study of crustal structure in Pennsylvania and New York: *Bulletin of the Seismological Society of America*, v. 45, p. 303–325. [2] [5] [6] [8]
- Katz, S., and Ewing, M., 1956, Seismic refraction measurements in the Atlantic Ocean, Part VII: Atlantic Ocean basin, west of Bermuda: *Bulletin of the Seismological Society of America*, v. 67, p. 475–510. [2] [5]
- Katz, S., Edwards, R.S., and Press, F., 1953, Seismic-refraction profile across the Gulf of Maine: *Bulletin of the Seismological Society of America*, v. 64, p. 249–251. [2] [4]
- Keen, C.E., 1979, Thermal history and subsidence of rifted continental margins—evidence for wells on the Nova Scotia and Labrador shelves: *Canadian Journal of Earth Science*, v. 16, p. 505–522, doi:10.1139/e79-046. [7]
- Keen, C.E., and Barrett, D.L., 1971, A measurement of seismic anisotropy in the northeast Pacific: *Canadian Journal of Earth Science*, v. 8, p. 1056–1064. [2] [6] [7]
- Keen, C.E., and Barrett, D.L., 1981, Thinned and subsided continental crust on the rifted margin of Eastern Canada: crustal structure, thermal evolution and subsidence history: *Geophysical Journal of the Royal Astronomical Society*, v. 65, p. 443–465. [2] [7]
- Keen, C.E., and Tramontini, C., 1970, A seismic refraction survey on the mid-Atlantic ridge: *Geophysical Journal of the Royal Astronomical Society*, v. 20, p. 473–491. [2] [6] [7]
- Keen, C.E., Barrett, D.L., Manchester, K.S., and Ross, D.I., 1972, Geophysical studies in Baffin Bay and some tectonic implications: *Canadian Journal of Earth Science*, v. 9, p. 239–256. [2] [7]
- Keen, C.E., Kay, W.A., and Roest, W.R., 1990, Crustal anatomy of a transform continental margin, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins*: *Tectonophysics*, v. 173, p. 527–544. [2] [8]
- Keller, G.R., and Balridge, W.S., 1999, The Rio Grande rift: a geological and geophysical overview: *Rocky Mountain Geology*, v. 34, p. 121–130, doi:10.2113/34.1.121. [9]
- Keller, G.R., and Hatcher, R.D., Jr., 1999, Some comparisons of the structure and evolution of the southern Appalachian-Ouachita orogen and portions of the Trans-European Suture Zone region: *Tectonophysics*, v. 314, p. 43–68, doi:10.1016/S0040-1951(99)00236-X. [9]
- Keller, G.R., Smith, R.B., and Braile, L.W., 1975, Crustal structure along the Great Basin–Colorado Plateau transition from seismic refraction studies: *Journal of Geophysical Research*, v. 80, p. 1093–1098, doi:10.1029/JB080i008p01093. [7]
- Keller, G.R., Braile, L.W., and Schlueter, J.W., 1979, Regional crustal structure of the Rio Grande rift from surface wave dispersion measurements, in Riecker, R.E., ed., *Rio Grande rift: tectonics and magmatism*: Washington, D.C., American Geophysical Union, Special Publication, p. 115–126. [7] [8]

- Keller, G.R., Khan, M.A., Morgan, P., Wendlandt, R.F., Baldridge, W.S., Olsen, K.H., Prodehl, C., and Braile, L.W., 1991, A comparative study of the Rio Grande and Kenya rifts, in Gangi, A.F., ed., World rift systems: Tectonophysics, v. 197, p. 355–372. [8]
- Keller, G.R., Braile, L.W., Davis, P.M., Meyer, R.P., Mooney, W.D., and the KRISP Working Group, 1992, Kenya Rift International Seismic Project, 1989–1990 experiment: Eos (Transactions, American Geophysical Union), v. 73, p. 345, 349–350, doi:10.1029/91EO00265. [9]
- Keller, G.R., Mechie, J., Braile, L.W., Mooney, W.D., and Prodehl, C., 1994a, Seismic structure of the uppermost mantle beneath the Kenya rift, in C. Prodehl, G.R. Keller, and M.A. Khan, eds., Crustal and upper mantle structure of the Kenya rift: Tectonophysics, v. 236, p. 201–216. [9]
- Keller, G.R., Prodehl, C., Mechic, J., Fuchs, K., Khan, M.A., Maguire, P.K.H., Mooney, W.D., Achauer, U., Davis, P.M., Meyer, R.P., Braile, L.W., Nyambok, I.O., and Thompson, G.A., 1994b, The East African rift system in the light of KRISP 1989–1990, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., Crustal and upper mantle structure of the Kenya rift: Tectonophysics, v. 236, p. 465–483. [9]
- Keller, G.R., Snelson, C.M., Sheehan, A.F., and Dueker, K.G., 1998, Geophysical studies of crustal structure in the Rocky Mountain region: a review. Rocky Mountain Geology, v. 33, p. 217–228. [6] [9]
- Keller, G.R., Karlstrom, K.E., and Farmer, G.L., 1999, Tectonic evolution in the Rocky Mountain region: 4-D imaging of the continental lithosphere: Eos (Transactions, American Geophysical Union), v. 80, p. 493, 495, 498. [9]
- Keller, G.R., Karlstrom, K.E., Williams, M.L., Miller, K.C., Andronicos, C., Levander, A., Snelson, C., and Prodehl, C. 2005a, The dynamic nature of the continental crust-mantle boundary: crustal evolution in the Southern Rocky Mountain region as an example, in Karlstrom, K.E., and Keller, G.R., eds., The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 403–420. [9]
- Keller, G.R., Klemperer, S.L., and Mooney, W.D., 2005b, PASSCAL instrumentation for controlled source seismology—a brief history: unpublished report. [2] [9] [10]
- Kelly, K.R., Ward, R.W., Treitel, S., and Alford, R.M., 1976, Synthetic seismograms: a finite difference approach: Geophysics, v. 41, p. 2–27, doi:10.1190/1.1440605. [9]
- Kempner, W.C., and Gettrust, J.F., 1982a, Ophiolites, synthetic seismograms, and oceanic crustal structure, 1: Comparison of ocean bottom seismometer data and synthetic seismograms from the Bay of Islands ophiolite: Journal of Geophysical Research, v. 87, p. 8447–8462, doi:10.1029/JB087B10p08447. [7] [8]
- Kempner, W.C., and Gettrust, J.F., 1982b, Ophiolites, synthetic seismograms, and oceanic crustal structure, 2: A comparison of synthetic seismograms of the Samail Ophiolite, Oman, and the ROSE refraction data from the East Pacific Rise: Journal of Geophysical Research, v. 87, p. 8462–8476, doi:10.1029/JB087B10p08463. [7] [8]
- Kennedy, G.C., 1959, The origin of continents, mountain ranges, and ocean basins: American Scientist, v. 47, p. 491–504. [5]
- Kennett, B.L.N., 1974, Reflections, rays, and reverberations: Bulletin of the Seismological Society of America, v. 64, p. 1685–1696. [7]
- Kennett, B.L.N., 1977, Towards a more detailed seismic picture of the oceanic crust and mantle: Marine Geophysics Research, v. 3, p. 7–42, doi:10.1007/BF00309792. [7]
- Kennett, B.L.N., 1983, Seismic wave propagation in stratified media: Cambridge, U.K., Cambridge University Press, 342 p. [2] [7] [10]
- Kennett, B.L.N., 2001, The seismic wavefield—Volume I: Introduction and theoretical development: Cambridge, U.K., Cambridge University Press. [2] [10]
- Kent, G.M., Harding, A.J., and Orcutt, J.A. 1993, Distribution of magma beneath the East Pacific Rise between the Clipperton transform and the 9°17'N deva from forward modelling of common depth point data: Journal of Geophysical Research, v. 98, p. 13945–13969, doi:10.1029/93JB00705. [8]
- Kent, G.M., Harding, A.J., and Orcutt, J.A., 1994, Uniform accretion of oceanic crust south of the Garrett transform at 14°15'S on the East Pacific Rise: Journal of Geophysical Research, v. 99 (B5), p. 9097–9116, doi:10.1029/93JB02872. [9]
- Keranen, K., Klemperer, S.L., Gloagen, R., and the EAGLE Working Group, 2004, Three-dimensional seismic imaging of a protoridge axis in the Main Ethiopian rift: Geology, v. 32, p. 949–952, doi:10.1130/G20737.1. [10]
- Khan, M.A., Maguire, P.K.H., Henry, W., Higham, M., Prodehl, C., Mechic, J., Keller, G.R., and Patel, J., 1989, A crustal seismic refraction line along the axis of the S. Kenya rift: Journal of African Earth Science, v. 8, p. 455–460, doi:10.1016/S0899-5362(89)80038-7. [8]
- Khan, M.A., Mechic, J., Birt, C., Byrne, G., Gaciri, S., Jacob, B., Keller, G.R., Maguire, P.K.H., Novak, O., Nyambok, I.O., Patel, J.P., Prodehl, C., Riarioh, D., Simiyu, S., and Thybo, H., 1999, The lithospheric structure of the Kenya Rift as revealed by wide-angle seismic measurements, in Mac Niocaill, C., and Ryan, P.D., eds., Continental tectonics: Geological Society, London, Special Publication 164, p. 257–269. [9]
- Kieckhefer, R.M., Shor, G.G.Jr., Curray, J.R., Sugiarta, W., and Hehuwat, F., 1980, Seismic refraction studies of the Sunda trench and forearc basin: Journal of Geophysical Research, v. 85, p. 863–889, doi:10.1029/JB085iB02p00863. [2] [7]
- Kim, K.Y., Lee, J.M., Moon, W., Baag, C-E., Jung, H., and Hong, M.H., 2007, Crustal structure of the southern Korean peninsula from seismic waves generated by large explosions in 2002 and 2004: Pure and Applied Geophysics, v. 164, p. 97–113, doi:10.1007/s00024-006-0149-4. [2] [10]
- Kind, R., 1974, Long-range propagation of seismic energy in the lower lithosphere: Journal of Geophysics, v. 40, p. 189–202. [7]
- Kind, R., Ni, J., Zhao, W., Wu, J., Yuan, X., Zhao, L., Sandvol, E., Reese, C., Nabelek, J., and Hearn, T., 1996, Mid-crustal low velocity zone beneath the southern Lhasa block: results from the INDEPTH-II earthquake recording program: Science, v. 274, p. 1692–1694, doi:10.1126/science.274.5293.1692. [9]
- Kirk, R.E., Whitmarsh, R.B., and Langford, J.J., 1982, A three-component ocean bottom seismograph for controlled source and earthquake seismology: Marine Geophysical Researches, v. 5, p. 327–341, doi:10.1007/BF00305568. [8]
- Kirk, R.E., Robertson, K., Whitmarsh, R.B., and Miles, P.R., 1991, A technique for conducting seismic refraction experiments on the ocean bed using bottom shots: Marine Geophysical Researches, v. 13, p. 153–160. [8]
- Kleffman, S., Davey, F., Melhuish, A., Okaya, D., Stern, T., 1998, Crustal structure in the central South Island, New Zealand, from the Lake Pukaki seismic experiment: New Zealand Journal of Geology and Geophysics, v. 41, p. 39–49, doi:10.1080/00288306.1998.9514789. [2] [9]
- Klemperer, S.L., 2006, Crustal flow in Tibet: geophysical evidence for the physical state of the Tibetan lithosphere, and inferred patterns of active flow, in Law, R.D., Searle, M.P., and Godin, L., eds., Channel flow, ductile extrusion and exhumation in continental collision zones: Geological Society London, spec. publ., 268, p. 39–70. [9]
- Klemperer, S.L., and Hobbs, R.W., 1991, The BIRPS Atlas: Deep seismic reflection profiles around the British Isles: Cambridge University Press, 124 p. and 100 seismic sections. [2] [8] [9]
- Klemperer, S.L., and Hurich, C.A., 1990, Lithospheric structure of the North Sea from deep seismic reflection profiling, in Blundell, D.J., and Gibbs, A., eds., Tectonic evolution of the North Sea rifts: Oxford University Press, p. 37–63. [2] [8]
- Klemperer, S.L., and Mooney, W.D., eds., 1998a, Deep seismic probing of the continents, I: a global survey: Tectonophysics, v. 288, p. 298 p. [2] [9]
- Klemperer, S.L., and Mooney, W.D., eds., 1998b, Deep seismic probing of the continents, II: general results and new methods: Tectonophysics, v. 286: 292 p. [2] [9]
- Klemperer, S.L., Hauge, T.A., Hauser, E.C., Oliver, J., and Potter, C.J., 1986, The Moho in the northern Basin and Range province, Nevada, along the COCORP 40°N seismic-reflection transect: Geological Society of America Bulletin, v. 97, p. 603–618, doi:10.1130/0016-7606(1986)97<603:TMITNB>2.0.CO;2. [8]
- Klemperer, S.L., Miller, E.L., Grantz, A., Scholl, D.W., Childs, J.R., Bogdanov, N.A., Belykh, I.N., Gnibidenko, H., Galloway, B., Hicks, B., Cole, F., and Toro, J., 2002, Crustal structure of the Bering and Chukchi shelves; deep seismic reflection profiles across the North American continent between Alaska and Russia, in Miller, E.L., Grantz, A., and Klemperer, S.L., eds., Tectonic Evolution of the Bering Shelf-Chukchi Sea-Artic Margin and Adjacent Landmasses: Geological Society of America Special Paper 360, p. 1–24. [9]
- Cluth, C.F., and Coney, P.J., 1981, Plate tectonics of the Ancestral Rocky Mountains: Geology, v. 9, p. 10–15, doi:10.1130/0091-7613(1981)9<10:PTOTAR>2.0.CO;2. [9]
- Knapp, C.C., Knapp, J.H., and Connor, J.A., 2004, Crustal-scale structure of the South Caspian basin revealed by deep seismic reflection profil-

- ing: *Marine and Petroleum Geology*, v. 21, p. 1073–1081, doi:10.1016/j.marpetgeo.2003.04.002. [10]
- Knapp, J.H., Diaconescu, C.C., Bader, M.A., Sokolov, V.B., Kashubin, S.N., and Rybalka, A.V., 1998, Seismic reflection fabrics of continental collision and post-orogenic extension in the Middle Urals, central Russia, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 115–126. [2] [9]
- Knothe, H., and Schröder, E., 1972, The German Democratic Republic, in Sollogub, V.B., Prosen, D., and Militzer, H., 1972, Crustal structure of central and southeastern Europe based on the results of explosion seismology (published in Russian 1971). English translation edited by Szénás, Gy., 1972: *Geophysical Transactions*, special edition, Müszaki Könykiado, Budapest, chapter 23, p. 80–86. [2] [6]
- Knothe, H., and Walther, K.F., 1968, Vorbereitung und Durchführung einer seismischen Tiefensondierung im Grenzgebiet DDR-CSSR: *Freiberger Forschungshefte*, C239. [6]
- Knott, C.G., 1919, The propagation of earthquake waves through the earth and connected problems: *Royal Society of Edinburgh Proceedings*, v. 39, p. 157–208. [3]
- Kodaira, S., Goldschmidt-Rokita, A., Hartmann, J.M., Hirschleber, H.B., Iwasaki, T., Kanazawa, T., Krahnen, H., Tomita, S., and Shimamura, H., 1995, Crustal structure of the Lofoten continental margin, off northern Norway, from ocean-bottom seismographic studies: *Geophysical Journal International*, v. 121, p. 907–924, doi:10.1111/j.1365-246X.1995.tb06447.x. [8]
- Kodaira, S., Iwasaki, T., Urabe, T., Kanazawa, T., Egloff, F., Makris, J., and Shimamura, H., 1996, Crustal structure across the middle Ryukyu trench obtained from ocean bottom seismographic data: *Tectonophysics*, v. 263, p. 39–60, doi:10.1016/S0040-1951(96)00025-X. [8]
- Kodaira, S., Takahashi, N., Park, J.-O., Mochizuki, K., Shinohara, M., and Kimura, S., 2000, Western Nankai Trough seismogenic zone: results from wide-angle ocean bottom seismic survey: *Journal of Geophysical Research*, v. 105, p. 5887–5905, doi:10.1029/1999JB900394. [2] [9]
- Kodaira, S., Kurashimo, E., Park, J.-O., Takahashi, N., Nakanishi, A., Miura, S., Iwasaki, T., Hirata, N., Ito, K., and Kaneda, Y., 2002, Structural factors controlling the rupture process of a megathrust earthquake at the Nankai trough seismogenic zone: *Geophysical Journal International*, v. 149, p. 815–835, doi:10.1046/j.1365-246X.2002.01691.x. [2] [9] [10]
- Kodaira, S., Iidaka, T., Kato, A., Park, J.-O., Iwasaki, T., and Kaneda, Y., 2004, High pore fluid pressure may cause silent slip in the Nankai Trough: *Science*, v. 304, p. 1295–1298, doi:10.1126/science.1096535. [2] [10]
- Kodaira, S., Iidaka, T., Nakanishi, A., Park, J.-O., Iwasaki, T., Kaneda, Y., 2005, Onshore-offshore seismic transect from the eastern Nankai Trough to central Japan crossing a zone of the Tokai slow slip event: *Earth, Planets and Space*, 57, p. 943–959. [10]
- Kodaira, S., Hori, T., Ito, A., Miura, S., Fujie, G., Park, J.-O., Baba, T., Sakaguchi, H., Kaneda, Y., 2006, A cause of rupture segmentation and synchronization in the Nankai trough revealed by seismic imaging and numerical simulation: *Journal of Geophysical Research*, v. 111, B09301, doi:10.1029/2005JB004030. [10]
- Kodaira, S., Sato, T., Takahashi, N., Ito, A., Tamura, Y., Tatsumi, Y., and Kaneda, Y., 2007a, Seismological evidence for variable growth of crust along the Izu intraoceanic arc: *Journal of Geophysical Research*, v. 112: doi:10.1029/2006BJ004593. [2] [10]
- Kodaira, S., Sato, T., Takahashi, N., Miura, S., Tamura, Y., Tatsumi, Y., and Kaneda, Y., 2007b, New seismological constraints on growth of continental crust in the Izu-Bonin intra-oceanic arc: *Geology*, v. 35, p. 1031–1034, doi:10.1130/G23901A.1. [10]
- Kogan, A.L., 1972, Results of deep seismic soundings of the earth's crust in East Antarctica, in Adie, R.J., ed., *Antarctic Geology and Geophysics*: Universitets Forlaget, Oslo (UUGS series B number1), p. 485–489. [6]
- Kohler, M.D., and Davis, P.M., 1997, Crustal thickness variations in southern California from Los Angeles Region Seismic Experiment (LARSE) passive phase teleseismic travel times: *Bulletin of the Seismological Society of America*, v. 87, p. 1330–1334. [9]
- Köhler, R., 1974, Anfänge der Reflexionseismik in Deutschland, in Birett, H., Helbig, K., Kertz, W., and Schmucker, U., eds., *Zur Geschichte der Geophysik*: Berlin-Heidelberg-New York, Springer, p. 99–113. [3]
- Kohler, W.M., and Catchings, R.D., 1994, Data report for the 1993 seismic refraction experiment in the San Francisco Bay Area, California: U.S. Geological Survey Open-File Report 94-241, 71 p. [9]
- Kohler, W.M., and Fuis, G.S., 1988, Data report for the 1979 seismic-refraction experiment in the Imperial Valley, California: U.S. Geological Survey Open-File Report 88-255, 96 p. [7]
- Kohler, W.M., Fuis, G.S., and Berge, P.A., 1987, Data report for the 1979–1985 seismic-refraction surveys in northeastern California: U.S. Geological Survey Open-File Report 87-625, Menlo Park, California, 99 p. [8]
- Kong, X., Wang, Q., and Xiong, S., 1996, Comprehensive geophysics and lithosphere structure in the western Xiang (Tibet) plateau: *Science in China (Series D)*, v. 39, p. 348–358. [9]
- Kopp, C., Fruehn, J., Flueh, E.R., Reichert, C., Kukowski, N., Bialas, J., and Klaeschen, D., 2000, Structure of the Makran subduction zone from wide-angle and reflection seismic data: *Tectonophysics*, v. 329, p. 171–191, doi:10.1016/S0040-1951(00)00195-5. [2] [9]
- Korenaga, J., Holbrook, W.S., Kent, G.M., Kelemen, P.B., Detrick, R.S., Larsen, H.-C., Hopper, J.R., and Dahl-Jensen, T., 2000, Crustal structure of the southeast Greenland margin from joint refraction and reflection seismic tomography: *Journal of Geophysical Research*, v. 105, p. 21,591–21,614, doi:10.1029/2000JB900188. [2] [9]
- Korsch, R.J., Wake-Dyster, K.D., O'Brien, P.E., Finlayson, D.M. and Johnstone, D.W., 1992, Geometry of Permian to Mesozoic sedimentary basins in eastern Australia and their relationship to the New England Orogen, in Rickard, M.J., Harrington, H.J., and Williams, P.R., eds., *Basement Tectonics 9*: Dordrecht, Kluwer Academic Publishers, p. 85–108. [2] [8]
- Korsch, R.J., Johnstone, D.W., and Wake-Dyster, K.D., 1997, Crustal architecture of the New England Orogen based on deep seismic reflection profiling: *Geological Society of Australia Special Publication* 19, p. 29–51. [2] [9]
- Korsch, R.J., Goleby, B.R., Leven, J.H., and Drummond, B.J., 1998, Crustal architecture of central Australia based on seismic reflection profiling, in Klemperer, S.L., and Mooney, W.D., Deep seismic profiling of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 57–69, doi:10.1016/S0040-1951(97)00283-7. [2] [8] [9]
- Korsch, R.J., Barton, T.J., Gray, D.R., Owen, A.J. and Foster, D.A., 2002, Geological interpretation of a deep seismic reflection transect across the boundary between the Delamerian and Lachlan orogens, in the vicinity of The Grampians, Western Victoria: *Australian Journal of Earth Sciences*, v. 49, p. 1057–1075, doi:10.1046/j.1440-0952.2002.00963.x. [2] [9]
- Kosminskaya, I.P., 1969, Explosion seismology: introduction, in Hart, P.J., ed., *The earth's crust and upper mantle: American Geophysical Union Geophysical Monograph* 13, p. 177. [6] [10]
- Kosminskaya, I.P., 1971, Deep seismic sounding of the earth's crust and upper mantle: Translated by G.V. Keller: New York-London, Consultants Bureau, 184 p. [2] [7] [10]
- Kosminskaya, I.P., and Pavlenkova, N.I., 1979, Seismic models of inner parts of the Euro-Asian continent and its margins: *Tectonophysics*, v. 59, p. 307–320, doi:10.1016/0040-1951(79)90052-0. [7]
- Kosminskaya, I.P., and Riznichenko, Y.V., 1964, Seismic studies of the earth's crust in Eurasia, in Odishaw, H., ed., *Research in Geophysics*, Vol. 2, *Solid Earth and Interface Phenomena*: Cambridge, MIT Press, p. 81–122. [2] [6]
- Kosminskaya, I.P., Belyaevsky, N.A., and Volvovsky, I.S., 1969, Explosion seismology in the USSR, in Hart, P.J., ed., *The earth's crust and upper mantle: American Geophysical Union Geophysical Monograph* 13, p. 195–208. [2] [6]
- Kosminskaya, I.P., Zverev, S.M., and Udintsev, G.B., 1973, Soviet seismic studies of the Earth's crust in the Pacific Ocean during the International Upper Mantle Project—a summary, in Mueller, S., ed., *The structure of the earth's crust, based on seismic data: Tectonophysics*, v. 20, p. 147–151. [2] [6] [7]
- Kostyuchenko, S.L., Egorkin, A.V., and Solodilov, L., 1999, Structure and genetic mechanisms of the Precambrian rifts of the East-European Platform in Russia by integrated seismic, gravity and magnetic data, in Stephenson, R.A., Wilson, M., and Starostenko, V.I., eds., *EUROPROBE GeoRift*, volume 2: Intraplate tectonics and basin dynamics of the East European Craton and its margins: *Tectonophysics*, v. 313, p. 9–28. [9]
- Kostyuchenko, S.L., Sapozhnikov, R., Egorkin, A., Gee, D.G., Berzin, R., and Solodilov, L., 2006, Crustal structure and tectonic model of northeastern Baltica, based on deep potential data, in Gee, D.G., and Stephenson, R.A., eds., *European lithosphere dynamics: Geological Society of London, Memoir* 32, p. 521–539. [2] [9] [10]

- Kozlovsky, Y., ed., 1988, The superdeep well of the Kola peninsula: Berlin-Heidelberg-New York, Springer, 558 p. [8] [9]
- Krabbenhoft, A., Bialas, J., Kopp, H., Kukowski, N., and Huebscher, C., 2004, Crustal structure of the Peruvian continental margin from wide-angle seismic studies: *Geophysical Journal International*, v. 159, p. 749–764, doi:10.1111/j.1365-246X.2004.02425.x. [2] [9] [10]
- Krawczyk, C.M., and the SPOC Team, 2003, Amphibious seismic survey images plate interface at 1960 Chile earthquake: *Eos (Transactions, American Geophysical Union)*, v. 84, p. 301, 304–305. [2] [9] [10]
- Krawczyk, C.M., Stiller, M., and DEKORP/BASIN Research Group, 1999, Reflection seismic constraints and Moho beneath on Paleozoic crustal structure the NE German Basin: *Tectonophysics*, v. 314, p. 241–253, doi:10.1016/S0040-1951(99)00246-2. [2] [9]
- Krawczyk, C.M., Stein, E., Choi, S., Oettinger, G., Schuster, K., Götze, H.-J., Haak, V., Oncken, O., Prodehl, C., and Schulze, A., 2000, Constraints on distribution and exhumation mechanisms of high-pressure rocks from geophysical studies—the Saxothuringian case between the Bray Fault and Elbe Line, in Franke, W., Haak, V., Oncken, O., and Tanner, D., eds., Orogenic processes: quantification and modelling in the Variscan belt: Geological Society of London Special Publication 179, p. 303–322, 2000, [2] [9]
- Krawczyk, C.M., Eilts, F., Lassen, A., and Thybo, H., 2002, Seismic evidence of Caledonian deformed crust and uppermost-mantle structure in the northern part of the Trans-European Suture Zone, SW Baltic Sea: *Tectonophysics*, v. 360, p. 215–244, doi:10.1016/S0040-1951(02)00355-4. [9]
- Krawczyk, C.M., Mechie, J., Lueth, S., Tasarova, Z., Wigger, P., Stiller, M., Brasse, H., Echtler, H.P., Araneda, M., and Bataille, K., 2006, Geophysical signatures and active tectonics at the south-central Chilean margin, in Oncken, O., Chong, G., Franz, G., Giese, P., Goetze, H.-J., Ramos, V.A., Strecker, M.R., and Wigger, P., eds., The Andes—active subduction orogeny. *Frontiers in Earth Sciences Series*: Berlin-Heidelberg-New York, Springer, p. 171–192. [2] [9] [10]
- Krey, T., Schmidt, G., and Seelis, K.-H., 1961, Über die Möglichkeit, den reflexionsseismisch erfassbaren Tiefenbereich zu erweitern: Erdöl und Kohle, v. 14, p. 521–526. [6]
- Krishna V.G., Rao C.V.R.K., Gupta H.K., Sarkar D., and Baumbach M., 1999, Crustal seismic velocity structure in the epicentral region of the Latur earthquake (September 29, 1993), southern India: inferences from modeling of the aftershock seismograms: *Tectonophysics*, v. 304, p. 241–255, doi:10.1016/S0040-1951(99)00028-1. [2] [9]
- KRISP Working Group, 1987, Structure of the Kenya rift from seismic refraction: *Nature*, v. 325, no. 6101, p. 239–242, doi:10.1038/325239a0. [8]
- KRISP Working Group, 1991, A compilation of data from the 1990 Kenya Rift International Seismic Project KRISP 90 seismic refraction–wide-angle reflection experiment: *Geophysical Institute, University of Karlsruhe, Open-File Report 91-1*, 80 p. [9]
- KRISP Working Group, 1995a, Group takes a fresh look at the lithosphere underneath southern Kenya: *Eos (Transactions, American Geophysical Union)*, v. 76, p. 73, 81–82. [9]
- KRISP Working Group, 1995b, A compilation of data from the 1994 Kenya Rift International Seismic Project KRISP 94 seismic refraction–wide-angle reflection experiment and accompanying gravity measurements: *Geophysical Institute, University of Karlsruhe, Open-File Report 95-1*, 65 p. [9]
- KRISP Working Party, 1991, Large-scale variation in lithospheric structure along and across the Kenya Rift: *Nature*, v. 354, p. 223–227, doi:10.1038/354223a0. [9]
- Kurashimo, E., Tokunaga, M., Hirata, N., Iwasaki, T., Kodaira, S., Kaneda, Y., Ito, K., Nishida, R., Kimura, S., and Ikawa, T., 2002, Geometry of the subducting Philippine Sea Plate and the crustal and upper mantle structure beneath the eastern Shikoku Island revealed by seismic refraction/wide-angle reflection profiling: *Zisin*, v. 54, p. 489–505. [9]
- Kurashimo, E., Iwasaki, T., Hirata, N., Ikawa, T., Kaneda, Y., and Onishi, M., 2007, Crustal structure of the southwestern Kuril Arc sited in the eastern part of Hokkaido, Japan, inferred from seismic refraction/reflection experiments: *Earth, Planets, and Space*, v. 59, p. 375–380. [9]
- Kutschale, H., 1966, Arctic Ocean geophysical studies: the southern half of the Siberia basin: *Geophysics*, v. 31, p. 683–710, doi:10.1190/1.1439804. [2] [6]
- Labrouste, Y., Choudhury, M., and Perrier, G., 1963, *Essais d'interprétation séismique. VI.B. Essai d'interprétation no. 2*, in Closs, H., and Labrouste, Y., eds., *Séismologie: Recherches séismologiques dans les Alpes occidentales au moyen de grandes explosions en 1956, 1958 et 1960: Mémoire Collectif, Année Géophysique Internationale, Centre National de la Recherche Scientifique, Série XII, Fasc. 2*, p. 176–201. [5] [6]
- Labrouste, Y., Baltenberger, P., Perrier, G., and Recq, M., 1968, Courbes dégale profondeur de la discontinuité de Mohorovičić dans le sud-est de la France: *Comptes rendus de l'Académie de sciences, France*, v. 266, p. 663–665. [6]
- Lafond, C.C., and Levander, A., 1995, Migration of wide-aperture onshore-offshore seismic data, central California: seismic images of late stage subduction: *Journal of Geophysical Research*, v. 100, p. 22,231–22,243, doi:10.1029/95JB01968. [2] [9]
- Lafoy, Y., Geli, L., Klingelhoefer, K., Vially, R., Sichler, B., and Nouze, H., 2005, Discovery of continental stretching and oceanic spreading in the Tasman Sea: *Eos (Transactions, American Geophysical Union)*, v. 86, no. 10, p. 101, 104–105, doi:10.1029/2005EO100001. [2] [10]
- Laigle, M., Hirn, A., Sachpazi, A., and Roussos, N., 2000, North Aegean crustal deformation: a new active fault imaged to 10 km depth by marine reflection seismic: *Geology*, v. 28, p. 71–74, doi:10.1130/0091-7613(2000)28<71:NACDAA>2.0.CO;2. [9]
- Laigle, M., Bécel, A., de Voogd, B., Hirn, A., Taymaz, T., Ozalabay, S., and members of the SEISMARMARA Leg1, 2007, A first deep seismic survey in the Sea of Marmara: deep basins and whole crust architecture and evolution: *Earth and Planetary Science Letters*, v. 270, no. 3–4, p. 168–179, doi:10.1016/j.epsl.2008.02.031. [2] [10]
- Lampshire, L.D., Coruh, C., and Costain, J.K., 1994, Crustal structures and the eastern extent of lower Paleozoic shelf strata within the central Appalachians: a seismic reflection interpretation: *Geological Society of America Bulletin*, v. 106, p. 1–18. [8]
- Landes, M., 2001, VARNET-96: data processing and seismic sections: *Geophysical Institute, University of Karlsruhe, Open-File Report*, 340 p., doi:10.1046/j.1365-246X.2000.00035.x. [9]
- Landes, M., Prodehl, C., Hauser, F., Jacob, A.W.B., Vermeulen, N.J., and Mechier, J., 2000, VARNET-96: Influence of the Variscan and Caledonian orogenies on crustal structure in SW Ireland: *Geophysical Journal International*, v. 140, p. 660–676, doi:10.1046/j.1365-246X.2000.00035.x. [8] [9]
- Landes, M., O'Reilly, B.M., Readman, P.W., Shannon, P.M., and Prodehl, C., 2003, VARNET-96: three-dimensional upper crustal velocity structure of SW Ireland: *Geophysical Journal International*, v. 153, p. 424–442, doi:10.1046/j.1365-246X.2003.01911.x. [2] [9]
- Landes, M., Fielitz, W., Hauser, F., Popa, M., and the CALIXTO Group, 2004a, 3-D upper-crustal tomographic structure across the Vrancea seismic zone, Romania: *Tectonophysics*, v. 382, p. 85–102, doi:10.1016/j.tecto.2003.11.013. [9]
- Landes, M., Hauser, F., Raileanu, V., Bala, A., Prodehl, C., Bribach, J., Harder, S., Hegedues, E., Keller, R.G., Stephenson, R.A., Mocanu, V., Dinu, C., and Diaconescu, C., 2004b, VRANCEA 2001 data processing and seismic sections: *Geophysical Institute, University of Karlsruhe, Open-File Report*, 57 p. and seismic sections. [9] [10]
- Landes, M., Ritter, J.R.R., Do, V.C., Readman, P.W. and O'Reilly, B.M., 2004c, Passive teleseismic experiment explores the deep subsurface of southern Ireland: *Eos (Transactions, American Geophysical Union)*, v. 85, p. 337, 340–341, doi:10.1029/2004EO360002. [9] [10]
- Landes, M., Ritter, J.R.R., Readman, P.W. and O'Reilly, B.M., 2005, The Irish crustal structure and its signatures from the Caledonian and Variscan orogenies: *Terra Nova*, v. 17, p. 111–120. [2] [8] [9] [10]
- Landisman, M., and Mueller, S., 1966, Seismic studies of the earth's crust in continents: part II: Analysis of wave propagation in continents and adjacent shelf areas: *Geophysical Journal of the Royal Astronomical Society*, v. 10, p. 539–554. [4] [6]
- Landisman, M., Mueller, S., and Mitchell, B.J., 1971, Review of evidence for velocity inversions in the continental crust, in Heacock, J.G., ed., *The structure and physical properties of the earth's crust: American Geophysical Union Geophysical Monograph 14*, p. 11–34. [6]
- Langinen, A.E., Lebedeva-Ivanova, N.N., Gee, D.G., and Zamansky, Yu.Ya., 2009, Correlations between the Lomonosov Ridge, Marvin Spur and adjacent basins of the Arctic Ocean based on seismic data: *Tectonophysics*, v. 472, p. 309–322, doi:10.1016/j.tecto.2008.05.029. [2] [8]
- Larkin, S.P., McCarthy, J., and Fuis, G.S., 1988, Data report for the PACE 1987 seismic refraction survey, west-central Arizona: U.S. Geological Survey Open-File Report 88-694, Menlo Park, California: 95 p. [8]
- LASE Study Group, 1986, Deep structure of the U.S. east coast passive margin from large aperture seismic experiments (LASE): *Marine and Petroleum Geology*, v. 3, p. 234–242, doi:10.1016/0264-8172(86)90047-4. [2] [8]

- Lassen, N.A., Thybo, H., and Berthelsen, A., 2001, Reflection seismic evidence for Caledonian deformed sediments above Sveconorwegian basement in the southwestern Baltic Sea: *Tectonics*, v. 20, no. 2, p. 268–276, doi:10.1029/2000TC900028. [9]
- Latham, T.S., Best, J., Chaimov, T., Oliver, J., Brown, L., and Kaufman, S., 1988, COCORP profiles from the Montana plains: the Archean cratonic crust and a lower crustal anomaly beneath the Williston basin: *Geology*, v. 16, p. 1073–1076, doi:10.1130/0091-7613(1988)016<1073:CPFTMP>2.3.CO;2. [2] [8]
- Lau, K.W.H., Louden, K.E., Funck, T., Tucholke, B.E., Holbrook, W.S., Hopper, J.R., and Larsen, H.C., 2006a, Crustal structure across the Grand Banks–Newfoundland Basin Continental Margin—I. Results from a seismic refraction profile: *Geophysical Journal International*, v. 167, p. 127–156, doi:10.1111/j.1365-246X.2006.02988.x. [8] [9]
- Lau, K.W.H., Louden, K.E., Deemer, S., Hall, J., Hopper, J.R., Tucholke, B.E., Holbrook, W.S., and Larsen, H.C., 2006b, Crustal structure across the Grand Banks–Newfoundland Basin Continental Margin—II. Results from a seismic reflection profile: *Geophysical Journal International*, v. 167, p. 157–170, doi:10.1111/j.1365-246X.2006.02989.x. [9]
- Laughton, A.S., and Tramontini, C., 1970, Recent studies of the crustal structure in the Gulf of Aden: *Tectonophysics*, v. 8, p. 359–375, doi:10.1016/0040-1951(69)90043-2. [6]
- Laughton, A.S., Matthews, D.H., and Fisher, R.L., 1970, The structure of the Indian Ocean, in Maxwell, A.E., ed., 1970, *The Sea, new concepts of ocean floor evolution*: New York, Wiley-Interscience, v. 4, p. 543–586. [6]
- Lawyer, L.C., Bates, C.C., and Rice, R.B., 2001, *Geophysics in the affairs of mankind—a personalized history of exploration geophysics*: Society of Exploration Geophysicists, Tulsa, Oklahoma, U.S.A., 205 p. [3] [10]
- Lay, T., and Wallace, T.C., 1995, *Modern global seismology*: Acad. Press, San Diego–New York, 517 p. [2] [10]
- Leaver, D.S., Mooney, W.D., and Kohler, W.M., 1984, A seismic refraction study of the Oregon Cascades: *Journal of Geophysical Research*, v. 89, p. 3121–3134, doi:10.1029/JB089iB05p03121. [8] [9]
- Lebedeva-Ivanova, N.N., Zamansky, Yu.Ya., Langinen, A.E., and Sorokin, M.Yu., 2006, Seismic profiling across the Mendeleev Ridge at 82°N: evidence of continental crust: *Geophysical Journal International*, v. 165, p. 527–544, doi:10.1111/j.1365-246X.2006.02859.x. [2] [8] [9]
- Leclair, A.D., Percival, J.A., Green, A.G., Wu, J., West, G.F., and Wang, W., 1994, Seismic reflection profiles across the central kapuskasing uplift: *Canadian Journal of Earth Science*, v. 31, p. 1016–1026, doi:10.1139/c94-092. [8]
- Lee, W., Kanamori, H., Jennings, P.C., and Kisslinger, C., eds., 2002, *International Handbook of Earthquake and Engineering Seismology*: Academic Press, Amsterdam. Part A: p. 1–933, Part B: p. 934–1945. [2] [10]
- Leenhardt, O., 1972, Organization, in Leenhardt, O., Gobert, B., Hinz, K., Hirn, A., Hirschleber, H., Hsü, H.J., Refubatti, A., Rudant, J.-P., Rudloff, R., Ryan, W.B.F., Snoek, M., and Steinmetz, L., Results of the Anna cruise—three north-south seismic profiles through the western Mediterranean Sea: *Bulletin du Centre Recherches Pau-SNPA*, v. 6, p. 373–381. [7]
- Leenhardt, O., Gobert, B., Hinz, K., Hirn, A., Hirschleber, H., Hsü, H.J., Refubatti, A., Rudant, J.-P., Rudloff, R., Ryan, W.B.F., Snoek, M., and Steinmetz, L., 1972, Results of the Anna cruise—three north-south seismic profiles through the western Mediterranean Sea: *Bulletin du Centre Recherches Pau-SNPA*, v. 6, p. 365–452. [2] [7]
- Leet, L.D., 1936, Seismological data on surface layers in New England: *Bulletin of the Seismological Society of America*, v. 26, p. 129–145. [3] [4]
- Leet, L.D., 1938, Travel times for New England: *Bulletin of the Seismological Society of America*, v. 28, p. 45–48. [2] [3]
- Leet, L.D., 1941, Trial travel times for northeastern America: *Bulletin of the Seismological Society of America*, v. 31, p. 325–334. [3]
- Leet, L.D., 1946, The velocity of P in the granitic layer: *Transactions, American Geophysical Union*, v. 27, p. 631–635. [4]
- Leet, L.D., and Birch, F., 1942, Seismic velocities, in Birch, F., Schairer, J.F., and Spicer, H.C., eds., 1942, *Handbook of physical constants*: Geological Society of America Special Paper 36, p. 93–101. [4] [5]
- Lehmann, I., 1948, On two explosions in Danish waters in the autumn of 1946: *Geofisica Pura ed Applicata*, v. 12, p. 145–161. [4]
- Leitner, B., Trebu, A.M., and Godfrey, N.J., 1998, Crustal structure of the northwestern Vizcaino block and Gorda Escarpment, offshore northern California, and implications for postsubduction deformation of a paleo-arc accretionary margin: *Journal of Geophysical Research*, v. 103, p. 23,795–23,812, doi:10.1029/98JB02050. [9]
- Le Pichon, X., and Cochran, J.R., eds., 1988, *The Gulf of Suez and Red Sea rifting*: *Tectonophysics*, v. 153, p. 1–320. [2]
- Le Pichon, X., Houtz, R.E., Drake, C.L., and Nafe, J.E., 1965, Crustal structure of the mid-ocean ridges: *Journal of Geophysical Research*, v. 70, p. 319–329, doi:10.1029/JZ070i002p00319. [5]
- Lerch, D.W., Klemperer, S.L., Glen, J.M.G., Ponce, D.A., Miller, E.L., and Colgan, J.P., 2007, Crustal structure of the northwestern Basin and Range province and its transition to unextended volcanic plateaus: *Geochemistry, Geophysics, Geosystems*, 8Q02011, doi:10.1029/2006GC001429. [2] [10]
- Lessel, K., 1998, Die Krustenstruktur der Zentralen Anden in Nordchile (21–24°S), abgeleitet aus 3D-Modellierungen refraktionsseismischer Daten: *Berliner Geowissenschaftliche Abhandlungen*, Reihe B, Band 31: 185 p. [9]
- Levander, A., Fuis, G.S., Wissinger, E.S., Lutter, W.J., Oldow, J.S., and Moore, T.E., 1994, Seismic images of the Brooks Range fold and thrust belt, Arctic Alaska, from an integrated seismic reflection/refraction experiment: *Tectonophysics*, v. 232, p. 13–30, doi:10.1016/0040-1951(94)90073-6. [8]
- Levander, A., Zelt, C., and Magnani, M.B., 2005, Crust and upper mantle velocity structure of the Southern Rocky Mountains from the Jemez Lineament to the Cheyenne Belt, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 293–308. [9]
- Levander, A., Schmitz, M., Ave Lallent, H., Zelt, C.A., Sawyer, D.S., Magnani, M.B., Mann, P., Christeson, G., Wright, J., Pavlis, G., and Pindell, J., 2006, The BOLIVAR and GEODINOS projects: investigating continental growth and deformation along the SE Caribbean plate boundary: *Eos (Transactions, American Geophysical Union)*, v. 87, p. 97–100. [10]
- Levander, A., Zelt, C., and Symes, W.W., 2007, Crust and lithospheric structure—active source studies of crust and lithospheric structure, in Romanowicz, B., and Dziewonski, A., eds., *Treatise on Geophysics*, vol 1, *Seismology and structure of the earth*: Amsterdam, Elsevier, p. 247–288. [2] [10]
- Leven, J.H., 1980, The application of synthetic seismograms to the interpretation of crustal and upper mantle structure [Ph.D. thesis]: Canberra, School of Earth Sciences, ANU, 235 p. [7]
- Leven, J.H., and Lindsay, J.F., 1995, A geophysical investigation of the southern margin of the Musgrave Block, South Australia: *AGSO Journal of Australian Geology and Geophysics*, v. 16, no. 1-2, p. 155–161. [9]
- Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., 1990, 3rd international symposium on deep seismic profiling of the continents and their margins: *Tectonophysics*, v. 173, p. 1–645. [2] [8]
- Lewis, B.T.R., and Garmany, J.D., 1982, Constraints on the structure of the East Pacific Rise from seismic refraction data: *Journal of Geophysical Research*, v. 87, p. 8417–8425. [7]
- Lewis, B.T.R., and Snydsman, W.E., 1979, Fine structure of the lower crust on the Cocos plate: *Tectonophysics*, v. 55, p. 87–105, doi:10.1029/JB087B10p08417. [2] [7]
- Lhiuzou Explosion Research Group, 1988, Observation of Lhiuzou explosion and the crustal structure in eastern Guangxi, in *Developments in the Research of Deep Structures of China's Continent*: Geological Publishing House, Beijing, p. 246–252. [8]
- Li, S., and Mooney, W.D., 1998, Crustal structure of China from deep seismic sounding profiles, in Klemperer, S.L., and Mooney, W.D., eds., *Deep seismic probing of the continents, II: a global survey*: *Tectonophysics*, v. 288, p. 105–113. [2] [8] [9] [10]
- Li, S., Mooney, W.D., and Fan, J., 2006, Crustal structure of mainland China from deep seismic sounding data: *Tectonophysics*, v. 420, p. 239–252, doi:10.1016/j.tecto.2006.01.026. [2] [9] [10]
- Liao, Q., Wang, Z., Zhu, Z., and Wu, X., 1988, Crust and upper mantle structure in the Quanzhou-Shantou region of China, in *Developments in the Research of Deep Structures of China's Continent*: Geological Publishing House, Beijing, p. 227–235. [8]
- Liebscher, H.J., 1962, *Reflexionshorizonte der tieferen Erdkruste im bayerischen Alpenvorland, abgeleitet aus Ergebnissen der Reflexionseismik*: *Z. für Geophysik*, v. 28, p. 162–184. [4] [5] [6]
- Liebscher, H.J., 1964, Deutungsversuche für die Struktur der tieferen Erdkruste nach reflexionseismischen und gravimetrischen Messungen im deutschen Alpenvorland: *Zeitschrift für Geophysik*, v. 30, p. 51–96, 115–126. [2] [4] [5] [6]

- Light, M.P.R., Maslanyi, M.P., Greenwood, R.J., and Banks, N.L., 1993, Seismic sequence stratigraphy and tectonics offshore Namibia, in Williams, G., and Dobb, A., eds., Tectonics and seismic sequence stratigraphy : Geological Society of London Special Publication 71, p. 163–191. [9]
- Lindeque, A.S., Ryberg, T., Stankiewicz, J., Weber, M.H., and de Wit, M.J., 2007, Deep crustal seismic reflection experiment across the southern Karoo Basin, South Africa: South African Journal of Geology, v. 110, no. 2-3, p. 419–438, doi:10.2113/gssajg.110.2-3.419. [2] [10]
- Lindwall, D.A., 1988, A two-dimensional seismic investigation of crustal structure under the Hawaiian islands near Oahu and Kauai: Journal of Geophysical Research, v. 93, p. 12,107–12,122, doi:10.1029/JB093iB10p12107. [8]
- Linke, F. and Wiechert, E., 1903, Monatsberichte über seismische Registrierungen in Göttingen: Königliches Geophysikalischs Institut zu Göttingen (Eigenverlag), 4 p. [3]
- Liu, C.-S., Reed, D.L., Lundberg, N., Moore, G.F., McIntosh, K.D., Nakamura, Y., Wang, T.K., Chen, T.H., Lallemand, S., 1995, Deep seismic imaging of the Taiwan arc-continent collision zone: Eos (Transactions, American Geophysical Union), v. 76, no. 46, p. F635. [9]
- Liu, M., Mooney, W.D., Li, S., Okaya, N., and Detweiler, S., 2006, Crustal Structure of the Northeastern Margin of the Tibetan Plateau from the Songpan-Ganzi Terrane to the Ordos Basin: Tectonophysics, v. 420, p. 253–266, doi:10.1016/j.tecto.2006.01.025. [2] [9] [10]
- Lizarralde, D., and Holbrook, W.S., 1997, U.S. Mid-Atlantic margin structure and early thermal evolution: Journal of Geophysical Research, v. 102, p. 22,855–22,875, doi:10.1029/96JB03805. [8] [9]
- Lizarralde, D., Holbrook, W. and Oh, J., 1994, Crustal structure across the Brunswick magnetic anomaly, offshore Georgia, from coincident ocean bottom And multi-channel seismic data: Journal of Geophysical Research, v. 99, p. 21741–21,757. [8]
- Long, D.T., Cox, S.C., Bannister, S., Gerstenberger, M.C., and Okaya, D., 2003, Upper crustal structure beneath the eastern Southern Alps and the Mackenzie Basin, New Zealand, derived from seismic reflection data: New Zealand Journal of Geology and Geophysics, v. 46, p. 21–39, doi:10.1080/00288306.2003.9514993. [2] [9]
- Long, G.H., Brown, L.D., and Kaufman, S., 1978, A deep seismic reflection survey across the San Andreas fault near Parkfield, California: Eos (Transactions, American Geophysical Union), v. 59, p. 385. [2] [7]
- Long, R.E., Maguire, P.K.H., and Sundarlingham, K., 1973, Crustal structure of the East African rift zone: Tectonophysics, v. 20, p. 269–281, doi:10.1016/0040-1951(73)90116-9. [6] [7]
- Lorenzo, J.M., Mutter, J.C., Larson, R.L., and the Northwest Australia Study Group, 1991, Development of the continent-ocean transform boundary of the southern Exmouth Plateau: Geology, v. 19, p. 843–846. [8]
- Louie, J.N., Thelen, W., Smith, S.B., Scott, J.B., Clark, M., and Pullammanappallil, S., 2004, The northern Walker Lane refraction experiment: Pn arrivals and the northern Sierra Nevada root: Tectonophysics, v. 388, p. 253–269, doi:10.1016/j.tecto.2004.07.042. [2] [10]
- Lowe, C., and Jacob, A.W.B., 1989, A north-south seismic profile across the Caledonian suture zone in Ireland: Tectonophysics, v. 168, p. 297–318, doi:10.1016/0040-1951(89)90224-2. [2] [8]
- Lu, D., and Wang, X., 1990, The crustal structure and deep internal processes in the Tuotuohe-Golnud area of north Qinghai-Xizang plateau: Bulletin of the Chinese Academy of Geological Science, v. 21, p. 227–237. [9]
- Lucas, S.B., White, D.J., Hajnal, Z., Lewry, J., Green, A., Clowes, R., Zwanzig, H., Ashton, K., Schledewitz, D., Stauffer, M., Norman, A.S., Williams, P.F., and Spence, G., 1994, Three-dimensional collisional structure of the Trans-Hudson Orogen, Canada: Tectonophysics, v. 232, p. 161–178, doi:10.1016/0040-1951(94)90082-5. [9]
- Ludden, J.N., ed., 1994, The Abitibi-Grenville Lithoprobe transect seismic reflection results, part I: the western Grenville Province and Pontiac Sub-province: Canadian Journal of Earth Science, v. 31, p. 227–446. [2] [9]
- Ludden, J.N., ed., 1995, Results from the Abitibi-Grenville Lithoprobe transect, part II: the Abitibi Greenstone Belt: Canadian Journal of Earth Science, v. 32 (2). [2] [9]
- Ludden, J.N., and Hynes, A., 2000a, The Lithoprobe Abitibi-Grenville transect: Canadian Journal of Earth Science, v. 37, p. 115–476, doi:10.1139/cjes-37-2-3-115. [2] [9]
- Ludden, J.N., and Hynes, A., 2000b, The Lithoprobe Abitibi-Grenville transect: two billion years of crust formation and recycling in the Precambrian Shield: Canadian Journal of Earth Science, v. 37, p. 459–476, doi:10.1139/cjes-37-2-3-459. [9]
- Ludwig, W.J., Ewing, J.I., Ewing, M., Murauchi, S., Den, N., Asano, S., Hotta, H., Hayakawa, M., Asanuma, T., Ichikawa, K., and Noguchi, I., 1966, Sediments and structure of the Japan trench: Journal of Geophysical Research, v. 71, p. 2121–2137. [2] [5] [6]
- Ludwig, W.J., Nafe, J.E., Simpson, E.S.W., and Sacks, S., 1968, Seismic refraction measurements on the southeast African continental margin: Journal of Geophysical Research, v. 73, p. 3707–3719, doi:10.1029/JB073i012p03707. [2] [6]
- Ludwig, W.J., Nafe, J.E., and Drake, L.E., 1970, General observations—seismic refraction, in Maxwell, A.E., ed., The Sea, new concepts of ocean floor evolution: Wiley-Interscience, New York, p. 53–84. [2] [6] [10]
- Lueschen, E., 1992, ASTRA 1991: First seismic field experiment in German-Russian cooperation (in German): DGG-Mitteilungen (News of the German Research Society), v. 3, p. 24–39. [2] [9]
- Lueschen, E., Wenzel, F., Sandmeier, K.-J., Menges, D., Rühl, Th., Stiller, M., Janoth, W., Keller, F., Söllner, W., Thomas, R., Krohe, A., Stenger, R., Fuchs, K., Wilhelm, H., and Eisbacher, G., 1987, Near-vertical and wide-angle seismic surveys in the Black Forest, SW Germany: Journal of Geophysics, v. 62, p. 1–30. [2] [8]
- Lueschen, E., Wenzel, F., Sandmeier, K.-J., Menges, D., Rühl, Th., Stiller, M., Janoth, W., Keller, F., Söllner, W., Thomas, R., Krohe, A., Stenger, R., Fuchs, K., Wilhelm, H., and Eisbacher, G., 1989, Near-vertical and wide-angle seismic surveys in the Schwarzwald, in Emmermann, R., and Wohlenberg, J., eds., The German continental deep drilling program (KTB): Springer, Berlin-Heidelberg, p. 297–362. [8]
- Lueschen, E., Nicolich, R., Cernobori, L., Fuchs, K., Kern, H., Kruhl, J.H., Persoglia, S., Romanelli, M., Schenk, V., Siegesmund, S., and Tortorici, L. (Italian-German Lower Crust Group), 1992, A seismic reflection-refraction experiment across the exposed lower crust in Calabria (southern Italy): first results: Terra Nova, v. 4, p. 77–86. [2] [9]
- Lueschen, E., Lammerer, B., Gebrande, H., Millahn, K., Nicolich, R., and TRANSLAP Working Group, 2004, Orogenic structure of the Eastern Alps, Europe, from TRANSLAP deep seismic reflection profiling: Tectonophysics, v. 388, p. 85–102, doi:10.1016/j.tecto.2004.07.024. [2] [9]
- Lueschen, E., Borrini, D., Gebrande, H., Lammerer, B., Millahn, K., Neubauer, F., Nicolich, R., and TRANSLAP Working Group, 2006, TRANSLAP—deep crustal Vibroseis and explosive seismic profiling in the Eastern Alps, in Gebrande, H., Castellarin, A., Lueschen, E., Millahn, K., Neubauer, F., and Nicolich, R., eds., TRANSLAP—a transect through a young collisional orogen: Tectonophysics, v. 414, p. 9–38. [9] [10]
- Luetgert, J.H., Mann, C.E., and Klemperer, S.L., 1987, Wide-angle deep crustal reflections in the northern Appalachians: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 183–189. [2] [8]
- Luetgert, J.H., Hughes, S., Cipar, J., Mangino, S., Forsyth, D., and Asudeh, I., 1990, Data report for O-NYNEX—the 1988 Grenville-Appalachian seismic refraction experiment in Ontario, New York and New England: Menlo Park, California, U.S. Geological Survey Open-File Report 90-426, 51 p. [2] [8]
- Luetgert, J., Benz, H., Criley, E., and Song-Lin, L., 1992, Data report for a seismic-refraction/wide-angle reflection investigation of the Atlantic coastal plain in South Carolina: Menlo Park, California, U.S. Geological Survey Open-File Report 92-723, 35 p. [9]
- Luetgert, J., Mooney, W., Trehu, A., Nabelek, J., Keller, G.R., Miller, K., Asudeh, I., and Isbell, B., 1993, Data report for a seismic-refraction/wide-angle reflection investigation of the Puget Basin and Willamette Valley in western Washington and Oregon: U.S. Geological Survey Open-File Report 93-347, 71 p. [9]
- Luetgert, J., Benz, H., and Madabushi, S., 1994, Crustal structure beneath the Atlantic coastal plain of South Carolina: Seismological Research Letters, v. 65, p. 180–191 [9]
- Lueth, S., Wigger, P., and ISSA Research Group, 2003, A crustal model along 39°S from a seismic refraction profile—ISSA 2000, Revista Geologica de Chile, v. 30, no. 1, p. 83–101. [2] [9] [10]
- Lund, C.-E., 1979, The fine structure of the lower lithosphere underneath the Blue Road Profile in northern Scandinavia: Tectonophysics, v. 56, p. 111–122, doi:10.1016/0040-1951(79)90017-9. [7]
- Lund, C.-E., Gorbatschev, R., and Smirnov, A., 2001, A seismic model of the Precambrian crust along the coast of southeastern Sweden: the Coast Profile wide-angle airgun experiment and the southern part of FEN-NOLORA revisited: Tectonophysics, v. 339, p. 93–111, doi:10.1016/S0040-1951(01)00135-4. [2] [9]

- Luosto, U., and Korhonen, H., 1986, Crustal structure of the Baltic Shield based on off-Fennlora refraction data, in Galson, D.A., and Mueller, St., eds., The European Geotraverse, Part 2: Tectonophysics, v. 128, p. 183–208. [2] [8]
- Luosto, U., Lanne, E., Korhonen, H., Guterch, A., Grad, M., Materzok, R., and Prechuc, E., 1984, Deep structure of the earth's crust on the SVEKA profile in central Finland: Ann. Geophys., v. 2, p. 559–570. [2] [8]
- Luosto, U., Flueh, E.R., Lund, C.E., and Working Group, 1989, The crustal structure along the POLAR profile from seismic refraction investigations, in Freeman, R., Knorring, M. von, Korhonen, H., Lund, C., and Muller, St., eds., The European Geotraverse, Part 5: The POLAR Profile: Tectonophysics, v. 162, p. 51–85. [2] [8]
- Luosto, U., Tiira, T., Korhonen, H., Azbel, I., Burmin, V., Buyanov, A., Kosminskaya, I., Ionkis, V., and Sharov, N., 1990, Crust and upper mantle structure along the DSS Baltic profile in SE Finland: Geophysical Journal International, v. 101, p. 89–110, doi:10.1111/j.1365-246X.1990.tb00760.x. [8]
- Lutter, W.J., Nowack, R.L., and Braile, L.W., 1990, Seismic imaging of upper crustal structure using traveltimes from the PASSCAL Ouachita experiment: Journal of Geophysical Research, v. 95, p. 4633–4646. [9]
- Lutter, W.J., Roberts, P.M., Thurber, C.H., Steck, L., Fehler, M.C., Stafford, D.G., Baldridge, W.S., and Zeichert, T.A., 1995, Teleseismic P-wave image of crust and upper mantle structure beneath the Valles caldera, New Mexico: initial results from the 1993 JTEX passive array: Geophysical Research Letters, v. 22, p. 505–508, doi:10.1029/94GL03220. [9]
- Lutter, W.J., Fuis, G.S., Thurber, C.H., and Murphy, J., 1999, Tomographic images of the upper crust from the Los Angeles basin to the Mojave Desert, California: results from the Los Angeles Region Seismic Experiment: Journal of Geophysical Research, v. 104, p. 25,543–25,565, doi:10.1029/1999JB900188. [9]
- Lutter, W.J., Fuis, G.S., Ryberg, T., Okaya, D.A., Clayton, R.W., Davis, P.M., Prodehl, C., Murphy, J.M., Langenheim, V.E., Benthien, M.L., Godfrey, N.J., Christensen, N.I., Thygesen, K., Thurber, C.H., Simila, G., and Keller, G.R., 2004, Upper crustal structure from the Santa Monica Mountains to the Sierra Nevada, southern California: Tomographic results from the Los Angeles Regional Seismic Experiment, Phase II (LARSE II): Bulletin of the Seismological Society of America, v. 94, p. 619–632, doi:10.1785 /0120030058. [9]
- Mabey, D.R., 1960a, Gravity survey of the western Mojave Desert, California: U.S. Geological Survey Professional Paper 316-D, p. 51–73. [5]
- Mabey, D.R., 1960b, Regional gravity survey of part of the Basin and Range province: U.S. Geological Survey Professional Paper 400-B, p. 283–285. [5]
- Macelwane, J.B., 1951, Evidence on the interior of the earth derived from seismic studies, in Gutenberg, B., ed., Internal constitution of the earth, 2nd ed.: Dover Publ., Inc., Chapter X, p. 227–304. [2] [3] [4] [10]
- Macgregor-Scott, N., and Walter, A.W., 1985, Data report, two earthquake-source refraction profiles crossing epicentral region of the 1983 Coalinga, California, earthquakes: U.S. Geological Survey Open-File Report 85-435, Menlo Park, California: 64 p. [8]
- Macgregor-Scott, N., and Walter, A., 1988, Crustal velocities near Coalinga, California, modelled from a combined earthquake/explosion refraction profile: Bulletin of the Seismological Society of America, v. 78, p. 1475–1490. [8]
- MacKenzie, D.P., 1978, Some remarks on the development of sedimentary basins: Earth and Planetary Science Letters, v. 40: 25–32, doi:10.1016 /0012-821X(78)90071-7. [8]
- Mackenzie, G.D., Shannon, P.M., Jacob, A.W.B., Morewood, N.C., Makris, J., Gaye, M., Egloff, F., 2002, The velocity structure of the sediments in the southern Rockall Basin: results from new wide-angle seismic modelling: Marine and Petroleum Geology, v. 19, p. 989–1003, doi:10.1016/S0264 -8172(02)00133-2. [2] [9] [10]
- Mackenzie, G.D., Thybo, H., and Maguire, P.K.H., 2005, Crustal velocity structure across the Main Ethiopian Rift: results from two-dimensional wide-angle seismic modelling: Geophysical Journal International, v. 162 (3), p. 994–1006, doi:10.1111/j.1365-246X.2005.02710.x. [10]
- Magnani, M.B., Levander, A., Miller, K.C., Eshete, T., and Karlstrom, K.E., 2005, Seismic investigation of the Yavapai–Mazatzal transition zone and the Jemez lineament in northern New Mexico, in Karlstrom, K.E., and Keller, G.R., eds., The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 227–238. [9]
- Magnani, M.B., Zelt, C.A., Levander, A., and Schmitz, M., 2009, Crustal structure of the South American–Caribbean plate boundary at 67°W from controlled source seismic data: Journal of Geophysical Research, v. 114, p. B02312, doi:10.1029/2008JB005817. [2] [10]
- Maguire, P.K.H., and SEIS–UK, 2002, A new dimension for UK seismology: Astronomy and Geophysics, v. 42, p. 23–25. [2] [9] [10]
- Maguire, P.K.H., Swain, C.J., Masotti, R., and Khan, M.A., 1994, A crustal and uppermost mantle cross-sectional model of the Kenya rift derived from seismic and gravity data, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., Crustal and upper mantle structure of the Kenya rift: Tectonophysics, v. 236, p. 217–249. [9]
- Maguire, P.K.H., Ebinger, C.J., Stuart, G.W., Mackenzie, G.D., Whaler, K.A., Kendall, J.-M., Khan, M.A., Fowler, C.M.R., Klemperer, S.L., Keller, G.R., Harder, S., Furman, T., Mickus, K., Asfaw, L., and Abebe, B., 2003, Geophysical Project in Ethiopia Studies Continental Breakup: Eos (Transactions, American Geophysical Union), v. 84, no. 35, p. 337, 342–343, doi:10.1029/2003EO350002. [2] [9] [10]
- Maguire, P.K.H., Keller, G.R., Klemperer, S.L., Mackenzie, G.D., Keranen, K., Harder, S., O'Reilly, B.M., Thybo, H., Asfaw, L., and Amha, M., 2006, Crustal structure of the northern Main Ethiopian Rift from the EAGLE controlled survey; a snapshot of incipient lithospheric breakup, in Yigu, G., Ebinger, C.J., and Maguire, P.K.H., eds., The Afar volcanic province within the East African rift system: Geological Society of London, Special Publication 29, p. 269–291. [10]
- Maguire, P.K.H., England, R.W., and Hardwick, A.J., 2011, LISPB DELTA, a lithospheric seismic profile in Britain: analysis and interpretation of the Wales and southern England section: Journal of the Geological Society of London, v. 168, p. 61–82, doi:10.1144/0016-76492010-030. [7]
- Mahadevan, T.M., 1994, Deep continental structure of India: a review: Bangalore, Geological Society India Memoir 28, 569 p., doi:10.1190/1.1440679. [2] [7] [8]
- Mair, J.A., and Lyons, J.A., 1976, Seismic reflection techniques for crustal structure studies: Geophysics, v. 41, p. 1272–1290. [7]
- Maistrello, M., Scarascia, S., Corsi, A., Egger, A., and Thouvenot, F., 1990, EGT 1985 southern segment. Compilation of data from the seismic refraction experiments in Tunisia and Pelagian Sea: Open-File Report, CNR—Istituto per la Geofisica della Litosfera, Milano, Italy, Part I: 115 p., Part II: 79 plates. [8]
- Maistrello, M., Scarascia, S., Ye, S., and Hirn, A., 1991, EGT 1986 central segment. Compilation of seismic data (additional profiles and fans) in Northern Apennines, Po Plain, Western and Southern Alps. Open-File Report, IGL—Istituto per la Geofisica della Litosfera, Milano, Italy, Part A: 24 p., Part B: 56 plates. [8]
- Majdanski, M., Grad, M., Guterch, A., and SUDETES Working Group, 2006, 2-D seismic tomographic and ray tracing modelling of the crustal structure across the Sudetes Mountains based on SUDETES 2003 experiment data: Tectonophysics, v. 413, p. 249–269. [10]
- Makovsky, Y., and Klemperer, S.L., 1999, Measuring the seismic properties of Tibetan hot spots: evidence for free aqueous fluids in the Tibetan middle crust: Journal of Geophysical Research, v. 104 (B5), p. 10,795–10,825, doi:10.1029/1998JB900074. [9]
- Makovsky, Y., Klemperer, S.L., Ratschbacher, L., Brown, L.D., Li, M., Zhao, W., and Men, M., 1996, INDEPTH Wide-angle reflection observation of P-wave to S-wave conversion from crustal bright spots in Tibet: Science, v. 274, p. 1690–1691, doi:10.1126/science.274.5293.1690. [9]
- Makovsky, Y., Klemperer, S.L., Ratschbacher, L., and Alsdorf, D., 1999, Mid-crustal reflector on INDEPTH wide-angle profiles: an ophiolitic slab beneath the India–Asia suture in southern Tibet? Tectonics, v. 18, p. 793–808, doi:10.1029/1999TC900022. [9]
- Makris, J., 1976, A dynamic model of the Hellenic arc deduced from geological data: Tectonophysics, v. 36, p. 339–346, doi:10.1016/0040-1951 (76)90108-6. [7]
- Makris, J., 1977, Geophysical investigations of the Hellenides: Hamburger Geophysikalische Einzelschriften, University of Hamburg, v. 34, p. 1–124. [2] [7]
- Makris, J., 1985, Geophysics and geodynamic implications for the evolution of the Hellenides, in Stanley, J., and Wezel, F.-C., eds., Geological evolution of the Mediterranean Basin: New York–Berlin, Springer, p. 231–248. [7]
- Makris, J., and Stobbe, C., 1984, Physical properties and state of the crust and upper mantle of the Eastern Mediterranean Sea deduced from geophysical data: Marine Geology, v. 55, p. 347–363, doi:10.1016/0025-3227 (84)90076-8. [7]

- Makris, J., and Vees, R., 1977, Crustal structure of the Aegean Sea and the islands of Crete of Evia and Crete, Greece, obtained by refractive seismic experiments: *Journal of Geophysics*, v. 42, p. 329–341. [2] [7]
- Makris, J., Weigel, W., and Koschyk, K., 1977, Seismic studies in the Cretan Sea—3. crustal models of the Cretan Sea deduced from refraction seismic measurements and gravity data: *Berlin-Stuttgart Meteor Forschungsberichte*, Borntraeger, C 27, p. 31–43. [2] [7]
- Makris, J., Ben Avraham, Z., Behle, A., Ginzburg, A., Giese, P., Steinmetz, L., Whitmarsh, R.B., and Eleftheriou, S., 1983a, Seismic refraction profiles between Cyprus and Israel and their interpretation: *Geophysical Journal of the Royal Astronomical Society*, v. 75, p. 575–591. [7]
- Makris, J., Allam, A., Mokhtar, T., Basahel, A., Dehghani, G.A., and Bazari, M., 1983b, Crustal structure in the northwestern region of the Arabian shield and its transition to the Red Sea: *Bulletin Faculty of Earth Science, King Abdulaziz University*, v. 6, p. 435–447. [7]
- Makris, J., Demnati, A., and Klussmann, J., 1985, Deep seismic soundings in Morocco and a crust and upper mantle model deduced from seismic and gravity data: *Annales Geophysicae*, v. 3, p. 369–380. [2] [7] [8]
- Makris, J., Nicolich, R., and Weigel, W., 1986, A seismic study in the Western Ionian Sea: *Annales Geophysicae*, v. 6, B, p. 665–678. [9]
- Makris, J., Egloff, R., Jacob, A.W.B., Mohr, P., Murphy, T., and Ryan, P., 1988, Continental crust under the southern Porcupine Seabight west of Ireland: *Earth and Planetary Science Letters*, v. 89, p. 387–397, doi:10.1016/0012-821X(88)90125-2. [8]
- Makris, J., Mohr, P., and Rihm, R., eds., 1991, Red Sea: birth and early history of a new oceanic basin: *Tectonophysics*, v. 198, p. 129–466. [2]
- Malinowski, M., Zelaznewicz, A., Grad, M., Guternik, A., Janik, T., and CELEBRATION Working Group, 2005, Seismic and geological structure of the crust in the transition from Baltica to Palaeozoic Europe in SE Poland—CELEBRATION 2000 experiment, profile CEL02: *Tectonophysics*, v. 401, p. 55–77, doi:10.1016/j.tecto.2005.03.011. [9]
- Malinowski, M., Grad, M., Guternik, A., Takács, E., Śliwiński, Z., Antonowicz, L., Iwanowska, E., Keller, G.R., and Hegediś, E., 2007, Effective sub-Zechstein salt imaging using low-frequency seismic—results of the GRUNDY 2003 experiment across the Variscan front in the Polish Basin: *Tectonophysics*, v. 439, p. 89–106, doi:10.1016/j.tecto.2007.03.006. [2] [10]
- Mallet, R., 1852, Report to the British Association for the Advancement of Science, Part 1, p. 272–320. [2] [3]
- Mandler, H.A.F., and Clowes, R.M., 1998, The HIS bright reflector: further evidence for extensive magmatism in the Precambrian of western Canada, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 71–81. [2] [9]
- Mandler, H.A.F., and Jokat, W., 1998, The crustal structure of central East Greenland: results from combined land-sea seismic refraction experiments: *Geophysical Journal International*, v. 135, p. 63–76, doi:10.1046/j.1365-246X.1998.00586.x. [2] [8] [9]
- Mansfield, R.H., and Evernden, J.F., 1966, Long-range seismic data from the Lake Superior seismic experiment, 1963–1964, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: Washington, D.C., American Geophysical Union Geophysical Monograph 10, p. 249–269. [2] [6]
- Marillier, F., Tomassino, A., Patriat, Ph., and Pinet, B., 1988, Deep structure of the Aquitaine Shelf: constraints from expanding spread profiles on the ECORS Bay of Biscay transect: *Marine and Petroleum Geology* 5, p. 65–74, doi:10.1016/0264-8172(88)90040-2. [2] [8]
- Marillier, F., Hall, J., Hughes, S., Louden, K., Reid, I., Roberts, B., Clowes, R., Coté, T., Fowler, J., Guest, S., Lu, H., Luetgert, J., Quinlan, G., Spencer, C., and Wright, J., 1994, LITHOPROBE East onshore-offshore seismic refraction survey—constraints on interpretation of reflection data in the Newfoundland Appalachians: *Tectonophysics*, v. 232, p. 43–58, doi:10.1016/0040-1951(94)90075-2. [2] [8] [9]
- Martin, M., Ritter, J.R.R., and the CALIXTO Working Group, 2005, High-resolution teleseismic body-wave tomography beneath SE-Romania—I. implications for three-dimensional crustal correction strategies with a new crustal velocity model: *Geophysical Journal International*, v. 162, p. 448–460, doi:10.1111/j.1365-246X.2005.02661.x. [9] [10]
- Martin, M., Wenzel, F., and the CALIXTO Working Group, 2006, High-resolution teleseismic body-wave tomography beneath SE-Romania—II. Imaging of a slab detachment scenario: *Geophysical Journal International*, v. 164, p. 579–595, doi:10.1111/j.1365-246X.2006.02884.x. [9] [10]
- Martínez-Martínez, J.M.; Soto, J.I. and Balanyá, J.C., 1997, Crustal decoupling and intracrustal flow beneath domal exhumed core complexes, Beticos (SE Spain): *Terra Nova*, v. 9, p. 223–227, doi:10.1111/j.1365-3121.1997.tb00017.x. [9]
- Massé, R.P., 1973, Compressional velocity distribution beneath central and eastern North America: *Bulletin of the Seismological Society of America*, v. 63, p. 911–935. [2] [6] [7]
- Masson, F., Jacob, A.W.B., Prodehl, C., Readman, P.W., Shannon, P.M., Schulze, A., and Enderle, U., 1998, A wide-angle seismic traverse through the Variscan of southwest Ireland: *Geophysical Journal International*, v. 134, p. 689–705, doi:10.1046/j.1365-246x.1998.00572.x. [8] [9]
- Masson, F., Hauser, F., and Jacob, A.W.B., 1999, The lithospheric trace of the Iapetus Suture in SW Ireland from teleseismic data: *Tectonophysics*, v. 302, p. 83–89, doi:10.1016/S0040-1951(98)00279-0. [9] [10]
- Mathur, S.P., 1974, Crustal structure in southwestern Australia from seismic and gravity data: *Tectonophysics*, v. 24, p. 151–182, doi:10.1016/0040-1951(74)90135-8. [2] [6]
- Mathur, S.P., 1983, Deep reflection experiments in northeastern Australia, 1976–1978: *Geophysics*, v. 48, p. 1588–1597, doi:10.1190/1.1441441. [2] [7]
- Mathur, S.P., 1984, Improvements in seismic reflection techniques for studying the lithosphere in Australia: *Tectonophysics*, v. 105, p. 373–381, doi:10.1016/0040-1951(84)90214-2. [7]
- Matsu'ura, R.S., Yoshii, T., Moriya, T., Miyamachi, H., Sasaki, Y., Ikami, A., and Ishida, M., 1991, Crustal structure of a seismic-refraction profile across the Melian and Akaishi tectonic lines, central Japan: *Bulletin of the Earthquake Research Institute*, v. 66, p. 497–516. [2] [8] [10]
- Matthews, D.H., and Cheadle, M.J., 1986, Deep reflections from the Caledonides and Variscides west of Britain and comparison with the Himalayas, in Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, Geodynamics Series, v. 13, p. 5–19. [2] [8]
- Matthews, D.H., and Smith, C., eds., 1987, Deep seismic reflection profiling of the continental lithosphere: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 1–448. [2] [8]
- Matuzawa, T., Matumoto, T., and Asano, S., 1959, On the crustal structure derived from observations of the second Hokoda explosion: *Bulletin of the Earthquake Research Institute*, v. 37, p. 509–524. [2] [5] [8]
- Maurain, C., Eblé, L., and Labrouste, H., 1925, Sur les ondes séismiques des explosions de la Courtine: *Journal de Physique et le Radium*, v. 6, p. 65–78, doi:10.1051/jphysrad:019250060306500. [3]
- Maurer, H., and Ansorge, J., 1992, Crustal structure beneath the northern margin of the Swiss Alps, in Freeman, R., and Mueller, St., eds., *The European Geotraverse, Part 8: Tectonophysics*, v. 207, p. 165–181. [8]
- Maxwell, A.E., ed., 1970, *The Sea, new concepts of ocean floor evolution*: New York, Wiley-Interscience, v.4, I: 791 p., II: 664 p. [2] [5] [6] [10]
- Mayer, G., May, P.M., Plenefisch, T., Echtler, H., Lüschen, E., Wehrle, V., Müller, B., Bonjer, K.-P., Prodehl, C., Wilhelm, H., and Fuchs, K., 1997, The deep crust of the southern Rhinegraben: reflectivity and seismicity as images of dynamic processes, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Stress and stress release in the lithosphere—structure and dynamic processes in the rifts of western Europe*: *Tectonophysics*, v. 275, p. 15–40. [2] [9]
- Mayerova, M., Novotny, M., and Fejfar, M., 1994, Deep seismic sounding in Czechoslovakia, in Bucha, V., and Blizkovsky, M., eds., *Crustal structure of the Bohemian Massif and the West Carpathians*: Berlin-Heidelberg-New York, Springer, p. 13–20. [7]
- McBride, J.H., White, R.S., Smallwood, J.R., and England, R.W., 2004, Must magmatic intrusion in the lower crust produce reflectivity? *Tectonophysics*, v. 388, p. 271–297, doi:10.1016/j.tecto.2004.07.055. [9]
- McCamy, K., and Meyer, R.P., 1964, A correlation method of apparent velocity measurement: *Journal of Geophysical Research*, v. 69, p. 691–699. [5] [6]
- McCamy, K., and Meyer, R.P., 1966, Crustal results of fixed multiple shots in the Mississippi embayment, in Steinhart, J.S., and Smith, T.J., eds., *The earth beneath the continents*: American Geophysical Union Geophysical Monograph 10, p. 370–381. [6]
- McCarthy, J., and Hart, P., 1993, Data report for the 1991 bay area seismic imaging experiment (BASIX): U.S. Geological Survey Open-File Report 93-301, 26 p. [9]
- McCarthy, J., Mutter, J.C., Morton, J.L., Sleep, N.H., and Thompson, G.A., 1988, Relic magma chamber structures preserved within the Mesozoic North Atlantic crust?: *Geological Society of America Bulletin*, v. 100, p. 1423–1436, doi:10.1130/0016-7606(1988)100<1423:RMCSPW>2.3.CO;2. [2] [8]

- McCarthy, J., Larkin, S.P., Fuis, G., Simpson, R.W., and Howard, K.A., 1991, Anatomy of a metamorphic core complex: seismic refraction/wide-angle reflection profiling in southeastern California and western Arizona: *Journal of Geophysical Research*, v. 96, p. 12,259–12,291, doi:10.1029/91JB01004. [2] [8]
- McCarthy, J., Kohler, W., and Criley, E., 1994, Data report for the PACE 1989 seismic refraction survey, northern Arizona: U.S. Geological Survey Open-File Report 94-138, 88 p. [2] [8]
- McDonald, M.A., Webb, S.C., Hildebrand, J.A., Cornuelle, B.D., and Fox, C.G., 1994, Seismic structure and anisotropy of the Juan de Fuca Ridge at 45°N: *Journal of Geophysical Research*, v. 99, p. 4857–4873, doi:10.1029/93JB02801. [2] [8]
- McEvilly, T.V., 1966, Crustal structure estimation within a large-scale array: *Geophysical Journal*, v. 11, p. 13–17, doi:10.1111/j.1365-246X.1966.tb03489.x. [6]
- McGeary, S., 1987, Nontypical BIRPS on the margin of the northern North Sea: the SHET survey: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 231–238. [2] [8]
- McGinnis, I.D., Bowen, R.H., Erickson, J.M., Allred, B.J., and Kreamer, J.L., 1985, East-west boundary in McMurdo Sound: *Tectonophysics*, v. 114, p. 341–356, doi:10.1016/0040-1951(85)90020-4. [2] [8]
- McMechan, G.A., and Mooney, W.D., 1980, Asymptotic ray theory and synthetic seismograms for laterally varying structures: theory and application to the Imperial Valley, California: *Bulletin of the Seismological Society of America*, v. 70, p. 2021–2035. [2] [7] [8] [10]
- McNamara, D.E., Walter, W.R., Owens, T.J., and Ammon, C.J., 1996, Upper mantle velocity structure beneath the Tibetan plateau from Pn travel time tomography: *Journal of Geophysical Research*, v. 102, p. 493–505, doi:10.1029/96JB02112. [9]
- Meador, P.J., and Hill, D.P., 1983, Data report for the July–August 1982 seismic-refraction experiment in the Mono craters–Long Valley region, California: Menlo Park, California, U.S. Geological Survey Open-File Report 83-708, 53 p. [2] [8]
- Meador, P.J., Hill, D.P., and Luetgert, J.H., 1985, Data report for the July–August 1983 seismic-refraction experiment in the Mono craters–Long Valley region, California, axial seismic refraction profiles: Menlo Park, California, U.S. Geological Survey Open-File Report 85-708, 70 p. [2] [8]
- Meador, P.J., Ambos, E.L., and Fuis, G.S., 1986, Data report for the North and South Richardson Highway profiles, TACT, seismic-refraction survey, southern Alaska: Menlo Park, California, U.S. Geological Survey Open-File Report 86-274, 51 p. [8]
- Mechie, J., 2000, Popular tools for interpreting seismic refraction/wide-angle reflection data, in Jacob, A.W.B., Bean, C.J., and Jacob, S.T.F., eds., 2000, Proceedings of the 1999 CCSS Workshop held in Dublin, Ireland: Communications of the Dublin Institute for Advanced Studies, Series D: *Geophysical Bulletin*, v. 49, p. 25–27. [9] [10]
- Mechie, J., and Prodehl, C., 1988, Crustal and uppermost mantle structure beneath the Afro-Arabian rift system, in Le Pichon, X., and Cochran, J.R., eds., The Gulf of Suez and Red Sea rifting: *Tectonophysics*, v. 153, p. 103–121. [2] [7] [8] [9]
- Mechie, J., Prodehl, C., and Fuchs, K., 1983, The long-range seismic refraction experiment in the Rhenish Massif, in Fuchs, K., von Gehlen, K., Mälzer, H., Murawski, H., and Semmel, A., eds., Plateau uplift: The Rhenish Massif—a case history: Berlin-Heidelberg, Springer, p. 260–275. [2] [7]
- Mechie, J., Prodehl, C., and Koptschalitsch, G., 1986, Ray path interpretation of the crustal structure beneath Saudi Arabia: *Tectonophysics*, v. 131, p. 333–352, doi:10.1016/0040-1951(86)90181-2. [7]
- Mechie, J., Egorkin, A.V., Fuchs, K., Ryberg, T., Solodilov, L. and Wenzel, F., 1993, P-wave mantle velocity structure beneath northern Eurasia from long-range recordings along the profile Quartz: *Physics of the Earth and Planetary Interiors*, v. 79, p. 269–286. [2] [7] [8]
- Mechie, J., Keller, G.R., Prodehl, C., Gaciri, S., Braile, L.W., Mooney, W.D., Gajewski, D., and Sandmeier, K.-J., 1994, Crustal structure beneath the Kenya rift from axial profile data, in Prodehl, C., Keller, G.A., and Khan, M.A., eds., Crustal and upper mantle structure of the Kenya rift: *Tectonophysics*, v. 236, p. 179–200. [9]
- Mechie, J., Prodehl, C., Keller, G.R., Khan, M.A., and Gaciri, S.J., 1997, A model for structure, composition and evolution of the Kenya rift, in Fuchs, K., Alther, R., Müller, B., and Prodehl, C., eds., Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: *Tectonophysics*, v. 278, p. 95–119. [9]
- Mechie, J., Abu-Ayyash, K., Ben-Avraham, Z., El-Kelani, R., Mohsen, A., Rümpker, G., Saul, J., and Weber, M., 2005, Crustal shear velocity structure across the Dead Sea transform from two-dimensional modelling of DESERT project explosion seismic data: *Geophysical Journal International*, v. 160, p. 910–924, doi:10.1111/j.1365-246X.2005.02526.x. [9]
- Mechie, J., Abu-Ayyash, K., Ben-Avraham, Z., El-Kelani, R., Qabbani, L., Weber, M., and DESIRE Group, 2009, Crustal structure of the southern Dead Sea basin derived from project DESIRE wide-angle seismic data: *Geophysical Journal International*, doi:10.1111/j.1365-246X.2009.04161.x. [2] [10]
- Meissner, R., 1966, An interpretation of the wide-angle measurements in the Bavarian Molasse Basin: *Geophysical Prospecting*, v. 14, p. 7–16, doi:10.1111/j.1365-2478.1966.tb01740.x. [2] [6] [8]
- Meissner, R., 1967a, Zum Aufbau der Erdkruste, Ergebnisse der Weitwinkel-messungen im bayerischen Molassebecken, Teil 1 und 2: *Gerlands Beiträge zur Geophysik*, v. 76, p. 211–254, 295–314. [6]
- Meissner, R., 1967b, Exploring deep interfaces by seismic wide angle measurements: *Geophysical Prospecting*, v. 15, p. 598–617, doi:10.1111/j.1365-2478.1967.tb01806.x. [6]
- Meissner, R., 1973, The “Moho” as a transition zone: *Geophysical Surveys*, v. 1, p. 195–216, doi:10.1007/BF01449763. [6]
- Meissner, R., 1976, Comparison of wide-angle measurements in the USSR and the Federal Republic of Germany, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 380–384. [6]
- Meissner, R., 1986, The continental crust—a geophysical approach: London, Academic Press, 426 p. [2]
- Meissner, R., 2000, The mosaic of terranes in central Europe as seen by deep reflection studies, in Mohriak, W., and Talwani, M., eds., *Atlantic Rifts and Continental Margins*, American Geophysical Union Geophysical Monograph 115, p. 33–55. [8]
- Meissner, R., and Bortfeld, R.K., 1990, DEKORP—Atlas. Results of Deutsches Kontinentales Reflexionsseismisches Programm: Berlin-Heidelberg, Springer. [2] [8] [9]
- Meissner, R., and Sadowiak, P., 1992, The terrane concept and its manifestation by deep reflection studies in the Variscides: *Terra Nova*, v. 4, p. 598–607. [8]
- Meissner, R., Bartelsen, H., Glocke, A., and Kaminski, W., 1976a, An interpretation of wide-angle measurements in the Rhenish Massif, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 245–251. [2] [6]
- Meissner, R., Flüh, E.R., Stibane, F., and Berg, E., 1976b, Dynamics of the active plate boundary in southwest Colombia according to recent geophysical measurements: *Tectonophysics*, v. 35, p. 115–136, doi:10.1016/0040-1951(76)90032-9. [7]
- Meissner, R., Bartelsen, H., and Murawski, H., 1980, Seismic reflection and refraction studies for investigating fault zones along the Geotraverse Rhenohercynium: *Tectonophysics*, v. 64, p. 59–84. [2] [7]
- Meissner, R., Bartelsen, H., and Murawski, H., 1981, Thin-skinned tectonics in the northern Rhenish Massif, Germany: *Nature*, v. 290, p. 399–401, doi:10.1038/290399a0. [8]
- Meissner, R., Springer, M., Murawski, H., Bartelsen, H., Flüh, E.R., and Dürschnier, H., 1983, Combined seismic reflection-refraction investigations in the Rhenish Massif and their relation to recent tectonic movements, in Fuchs, K., von Gehlen, K., Mälzer, H., Murawski, H., and Semmel, A., eds., Plateau uplift: The Rhenish Massif—a case history: Berlin-Heidelberg, Springer, p. 276–287. [2] [7]
- Meissner, R., Wever, T., and Bittner, R., 1987a, Results of DEKORP 2—S and other reflection profiles through the Variscides: *Geophysical Journal of the Royal Astronomical Society*, 89, p. 319–324. [8]
- Meissner, R., Wever, T., and Flueh, E.R., 1987b, The Moho in Europe—implications for crustal development: *Annales Geophysicae*, v. 5B, p. 357–364. [2] [8] [10]
- Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., 1991a, *Continental lithosphere: deep seismic reflections*: American Geophysical Union, Geodynamics Series, v. 22, p. 450 p. [2] [8]
- Meissner, R., and the DEKORP Research Group, 1991b, The DEKORP surveys: Major results in tectonic and reflective styles, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: American Geophysical Union, Geodynamics Series, v. 22, p. 69–76. [2] [8]

- Meissner, R., Tilmann, F., and Haines, S., 2004, About the lithospheric structure of central Tibet, based on seismic data from the INDEPTH III profile: *Tectonophysics*, v. 380, p. 1–25, doi:10.1016/j.tecto.2003.11.007. [9]
- Melhuish, A., Sutherland, R., Davey, F.J., and Larmarache, G., 1999, Crustal structure and neotectonics of the Puysegur oblique subduction zone, New Zealand: *Tectonophysics*, v. 313, p. 335–362, doi:10.1016/S0040-1951(99)00212-7. [2] [9]
- Mellman, G.R., 1980, A method of body-wave waveform inversion for the determination of the earth structure: *Geophysical Journal of the Royal Astronomical Society*, v. 62, p. 481–504. [8]
- MELT Seismic Team, 1998, Imaging the deep seismic structure beneath a mid-ocean ridge: the MELT experiment: *Science*, v. 280, p. 1215–1217, doi:10.1126/science.280.5367.1215. [9]
- Meltzer, A.S., Levander, A.R., and Mooney, W.D., 1987, Upper crustal structure, Livermore Valley and vicinity, California coast ranges: *Bulletin of the Seismological Society of America*, v. 77, p. 1655–1673. [8]
- Meltzer, A., Sarker, G., Beaudoin, B., Seeber, L., and Armbruster, J., 2001, Seismic characterization of an active metamorphic massif, Nanga Parbat, Pakistan Himalaya: *Geology*, v. 29, p. 651–654, doi:10.1130/0091-7613(2001)029<0651:SCOAAM>2.0.CO;2. [9]
- MEMSAC Working Group, 1993, Uniform seismic data recording format explored: *Eos (Transactions, American Geophysical Union)*, v. 74, no. 37, 421, doi:10.1029/93EO00472. [9]
- Menard, H.W., 1964, *Marine geology of the Pacific*: New York, McGraw Hill. [6]
- Menke, W., West, M., Brandsdottir, B., and Sparks, D., 1998, Compressional and shear velocity structure of the lithosphere in northern Iceland: *Bulletin of the Seismological Society of America*, v. 88, p. 1561–1571. [2] [9]
- Mereu, R.F., 2000a, The complexity of the crust and Moho under the southeastern Superior and Grenville provinces of the Canadian Shield from seismic refraction–wide-angle reflection data: *Canadian Journal of Earth Science*, v. 37, p. 439–458, doi:10.1139/cjes-37-2-3-439. [8] [9]
- Mereu, R.F., 2000b, The effect of small random crustal reflectors on the complexity of Pg and PnP coda: *Physics of the Earth and Planetary Interiors*, v. 120, p. 183–199, doi:10.1016/S0031-9201(99)00164-8. [9]
- Mereu, R.F., and Hunter, J.A., 1969, Crustal and upper mantle structure under the Canadian Shield from Project Early Rise data: *Bulletin of the Seismological Society of America*, v. 59, p. 147–155. [6]
- Mereu, R.F., and Jobidon, G., 1971, A seismic investigation of the crust and Moho on a line perpendicular to the Grenville Front: *Canadian Journal of Earth Science*, v. 8, p. 1553–1583. [6]
- Mereu, R.F., Majumdar, S.C., and White, R.E., 1977, The structure of the crust and upper mantle under the highest ranges of the Canadian Rockies from a seismic refraction survey: *Canadian Journal of Earth Science*, v. 14, p. 196–208. [6]
- Mereu, R.F., Wang, D., Kuhn, O., Forsyth, D.A., Green, A.G., Morel, P., Buchbinder, G.R., Crossley, D., Schwarz, E., duBerger, R., Brooks, C., and Clowes, R., 1986, The 1982 COCRUST experiment across the Ottawa-Bonnechere graben and Grenville front in Ontario and Quebec: *Geophysical Journal of the Royal Astronomical Society*, v. 84, p. 491–514. [2] [8]
- Mereu, R.F., Baerg, J., and Wu, J., 1989, The complexity of the continental lower crust and Moho from PnP data: results from COCRUST experiments, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., *Properties and processes of earth's lower crust: American Geophysical Union Geophysical Monograph* 51, p. 103–119. [2] [7] [8]
- Merkel, R.H., and Alexander, S.S., 1969, Use of correlation analysis to interpret continental margin ECOOE refraction data: *Journal of Geophysical Research*, v. 74, p. 2683–2697, doi:10.1029/JB074i010p02683. [6]
- Meyer, R.P., Steinhart, J.S., and Woppard, G.P., 1958, Seismic determination of crustal structure in the central plateau of Mexico (abst.): *Transactions, American Geophysical Union*, v. 39, p. 525. [5] [9]
- Meyer, R.P., Steinhart, J.S., and Woppard, G.P., 1961a, Central plateau, Mexico, 1957, in Steinhart, J.S., and Meyer, R.P., eds., 1961, *Explosion Studies of Continental Structure*: Carnegie Institution of Washington, Publication no. 622, p. 199–225. [2] [5] [9]
- Meyer, R.P., Steinhart, J.S., and Bonini, W.E., 1961b, Montana, 1959, in Steinhart, J.S., and Meyer, R.P., eds., 1961, *Explosion Studies of Continental Structure*: Carnegie Institution of Washington, Publication no. 622, p. 305–343. [2] [5]
- Meyer, R.P., Mooney, W.D., Hales, A.L., Helsley, C.E., Woppard, G.P., Hussong, D.M., Kroenke, L.W., and Ramirez, J.E., 1976, Project Narino III: Refraction observation across a leading edge, Malpelo island to the Colombian Cordillera Occidental, in Sutton, G.H., Manghnani, M.H., Moberly, R., and McAffe, E.U., eds., *The geophysics of the Pacific Ocean basin and its margin: American Geophysical Union Geophysical Monograph* 19, p. 105–132. [2] [7]
- Mezcua, J., and Carreno, E., eds., 1993, *Iberian Lithosphere Heterogeneity and Anisotropy—ILIHA: Monografia no. 10*, Istituto Geografico Nazional, Madrid, Spain, 329 p. [8]
- Michel, B., 1978, La croûte entre vallée du Rhin et vallée du Rhône: interprétation de profils sismiques et résultats structureaux [thèse]: University of Paris VII, 133 p. [7]
- Milkereit, B., and Flueh, E.R., 1985, Saudi Arabian refraction profile: Crustal structure of the Red Sea–Arabian Shield transition: *Tectonophysics*, v. 111, p. 283–298, doi:10.1016/0040-1951(85)90289-6. [7]
- Millahn, K., Lueschen, E., Gebrände, H., Lammerer, and TRANSALP Working Group, 2006, TRANSALP—cross-line recording during the seismic reflection transect in the Eastern Alps, in Gebrände, H., Castellarin, A., Lueschen, E., Millahn, K., Neubauer, F., and Nicolich, R., eds., TRANSALP—a transect through a young collisional orogen, *Tectonophysics*, v. 414, p. 39–49. [9]
- Miller, H., and Gebrände, H., 1976, Crustal structure in southeastern Bavaria derived from seismic-refraction measurements by ray-tracing methods, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 339–346. [7]
- Miller, H., Ansorge, J., Aric, K., and Perrier, G., 1978, Preliminary results of the lithospheric seismic Alpine longitudinal profile, 1975, from France to Hungary, in Closs, H., Roeder, D., and Schmidt, K., eds., *Alps, Apennines, Hellenides*: Stuttgart, Schweizerbart, p. 33–39. [2] [7]
- Miller, H., Mueller, St., and Perrier, G., 1982, Structure and dynamics of the Alps: a geophysical inventory, in Berckhemer, H., and Hsü, K., eds., *Alpine-Mediterranean geodynamics*: American Geophysical Union Geodynamics Series, v. 7, p. 175–203. [7]
- Miller, K.C., Keller, G.R., Grindley, J.M., Luetgert, J.H., Mooney, W.D., and Thybo, H., 1997, Crustal structure along the west flank of the Cascades; western Washington: *Journal of Geophysical Research*, v. 102, p. 17,857–17,873, doi:10.1029/97JB00882. [9]
- Milne, J., 1885, Seismic experiments: *Transactions of the Seismological Society of Japan*, v. 8, p. 1–82. [3]
- Minshull, T.A., 2002, Seismic structure of the oceanic crust and rifted continental margins, in Lee, W., Kanamori, H., Jennings, P.C., and Kisslinger, C., eds., *International Handbook of Earthquake and Engineering Seismology*, Part A: Amsterdam, Academic Press, p. 911–924. [2] [5] [6] [7] [8] [9] [10]
- Mintrop, L., 1930, On the history of the seismic method for the investigation of underground formations and mineral deposits. Part II. *Seismos*: Hanover, GmbH, 128 p. [3]
- Mintrop, L., 1947, 100 Jahre physikalische Erdbebenforschung und Sprengseismik. *Die Naturwissenschaften*, v. 34, p. 257–262, 289–295, doi:10.1007/BF00589855. [2] [3] [10]
- Mintrop, L., 1949a, Wirtschaftliche und wissenschaftliche Bedeutung geophysikalischer Verfahren zur Erforschung von Gebirgschichten und nutzbaren Lagerstätten. *Berg—und Hüttenmännische Monatshefte*, 94 (8/9): Wien, Springer, p. 198–211. [3]
- Mintrop, L., 1949b, On the stratification of the earth's crust according to seismic studies of a large explosion and of earthquakes: *Geophysics*, v. 14, p. 321–336, doi:10.1190/1.1437540. [4]
- Mitchell, B.J., and Landisman, M., 1971, Geophysical measurements in the southern Great Plains, in Heacock, J.G., ed., *The structure and physical properties of the earth's crust*: American Geophysical Union Geophysical Monograph 14, p. 77–93. [6]
- Mithal, R., and Mutter, J.C., 1989, A low velocity zone within the layer 3 region of 118 Myr old oceanic crust in the western North Atlantic: *Geophysical Journal*, v. 97, p. 275–294, doi:10.1111/j.1365-246X.1989.tb00501.x. [8]
- Mitra, S., Priestley, K., Bhattacharyya, A.K., and Gaur, V., 2005, Crustal structure and earthquake focal depths beneath northeastern India and southern Tibet: *Geophysical Journal International*, v. 160, p. 227–248, doi:10.1111/j.1365-246X.2004.02470.x. [9]
- Mituch, E., and Posgay, K., 1972, Hungary, in Sollogub, V.B., Prosen, D., and Militzer, H., 1972, *Crustal structure of central and southeastern Europe based on the results of explosion seismology* (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: *Geophysical Transactions*, spec. ed., Müszaki Könyvkiadó, Budapest, chapter 28, p. 118–129. [2] [6]

- Miura, S., Kodaira, S., Nakanishi, A., Tsuru, T., Takahashi, N., Hirata, N., and Kaneda, Y., 2003, Structural characteristics controlling the seismicity of southern Japan Trench fore-arc region, revealed by ocean bottom seismographic data: *Tectonophysics*, v. 363, p. 79–102, doi:10.1016/S0040-1951(02)00655-8. [2] [9] [10]
- Miura, S., Takahashi, N., Nakanishi, A., Tsuru, T., Kodaira, S., and Kaneda, Y., 2005, Structural characteristics off Miyagi forearc region, the Japan trench seismogenic zone, deduced from a wide-angle reflection and refraction study: *Tectonophysics*, v. 407, p. 165–188, doi:10.1016/j.tecto.2005.08.001. [2] [9] [10]
- Mjelde, R., Sellevoll, M.A., Shimamura, H., Iwasaki, T., and Kanazawa, T., 1992, A crustal study off Lofoten, N. Norway, by use of 3-component ocean bottom seismographs: *Tectonophysics*, v. 212, p. 269–288, doi:10.1016/0040-1951(92)90295-H. [2] [8] [9] [10]
- Mjelde, R., Kodeira, S., Shimamura, H., Kanazawa, T., Shiobara, H., Berg, E.W., and Riise, O., 1997, Crustal structure of the central part of the Voring basin, mid-Norway, from ocean-bottom seismographs: *Tectonophysics*, v. 277, p. 235–257, doi:10.1016/S0040-1951(97)00028-0. [2] [9]
- Mjelde, R., Digranes, P., Van Schaak, M., Shimamura, H., Shiobara, H., Kodeira, S., Naess, O., Sorenes, N., and Thorbjørnsen, T., 1998, Crustal structure of the northern part of the Voring Basin, mid-Norway margin, from ocean-bottom seismic and gravity data: *Journal of Geophysical Research*, v. 106, p. 6769–6791, doi:10.1029/2000JB900415. [2] [9] [10]
- Mjelde, R., Digranes, P., Shimamura, H., Shiobara, H., Kodeira, S., Brekke, H., Egebjerg, T., Sorenes, N., and Vaagnes, E., 2001, Crustal structure of the outer Voring Plateau, offshore Norway, from wide-angle seismic and gravity data: *Tectonophysics*, v. 293, p. 175–205, doi:10.1016/S0040-1951(98)00090-0. [9] [10]
- Moeller, L., and Makris, J., 1989, An Ocean Bottom Seismic Station for general use—technical requirements and applications, in Hoefeld, J., Mitzlaff, A., and Polomsky, S., eds., Europe and the Sea, Marine Sciences and Technology in the 1990s: German Committee for Marine Sciences and Technology, Hamburg, p. 196–211. [8]
- Mohorovičić, A., 1910, Das Beben vom 8.X.1909: Jahrbuch des meteorologischen Observatoriums in Zagreb für 1909, IX, IV. Teil, Abschn. 1, Zagreb. [3]
- Mohriak, W.U., Bassetto, M., and Santos Vieira, I., 1998, Crustal architecture and tectonic evolution of the Sergipe-Alagoas and Jacoipe basins, offshore northeastern Brazil, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, II: a global survey: *Tectonophysics*, v. 288, p. 199–220. [2] [9]
- MONA LISA Working Group, 1997, Deep seismic investigations of the lithosphere in the southeastern North Sea: *Tectonophysics*, v. 269, p. 1–19, doi:10.1016/S0040-1951(96)00111-4. [2] [9]
- Montrasio, A., Nicolich, R., and Sciesa, E., 2003, The profile CROP Alpi Centrali, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, v. 62, p. 96–106. [8]
- Mooney, W.D., 1987, Seismology of the continental crust and upper mantle: *Reviews in Geophysics*, v. 25, p. 1168–1176, doi:10.1029/RG025i006p01168. [8]
- Mooney, W.D., 1989, Seismic methods to determine earthquake source parameters and lithospheric structure, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 249–284. [2] [10]
- Mooney, W.D., 2002, Continental crust, in Encyclopedia of Physical Science and Technology, 3rd ed., v. 3, p. 635–657. [2] [9] [10]
- Mooney, W.D., 2007, Crust and lithospheric structure-global crustal structure, in Romanowicz, B., and Dziewonski, A., eds., Seismology and structure of the earth: Treatise on Geophysics, v. 1: Amsterdam, Elsevier, p. 361–417. [10]
- Mooney, W.D., and Braile, L.W., 1989, The seismic structure of the continental crust and upper mantle of North America, in Bally, A.W., and Palmer, A.R., eds., The geology of North America—an overview: Boulder, Colorado, Geological Society of America, Geology of North America, v. A, p. 39–52. [2] [8]
- Mooney, W.D., and Brocher, T.M., 1987, Coincident seismic reflection/refraction studies of the continental lithosphere: a global review: *Reviews in Geophysics*, v. 25, p. 723–742, doi:10.1029/RG025i004p00723. [2] [8]
- Mooney, W.D., and Meissner, R., 1992, Multi-generic origin of crustal reflectivity: a review of seismic reflection profiling of the continental lower crust and Moho, in Fountain, D.M., Arculus, R., and Kay, R.W., eds., Continental lower crust: Amsterdam, Elsevier, p. 45–79. [2] [8]
- Mooney, W.D., and Prodehl, C., 1978, Crustal structure of the Rhenish Massif and adjacent areas; a reinterpretation of existing seismic-refraction data: *Journal of Geophysics*, v. 44, p. 573–601. [7]
- Mooney, W.D., and Prodehl, C., 1984, A comparison of crustal sections: Arabian Shield to the Red Sea, in Mooney, W.D., and Prodehl, C., eds., Proceedings of the 1980 Workshop of the IASPEI on the seismic modeling of laterally varying structures: Contributions based on data from the 1978 Saudi Arabian refraction profile: U.S. Geological Survey Circular 937, p. 140–153. [7] [8] [10]
- Mooney, W.D., and Weaver, C.S., 1989, Regional crustal structure and tectonics of the Pacific coastal states; California, Oregon, and Washington, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 129–161. [8]
- Mooney, W.D., Meyer, R.P., Laurence, J.P., Meyer, H., and Ramirez, J.E., 1979, Seismic refraction studies of the western cordillera, Colombia: Bulletin of the Seismological Society of America, v. 69, p. 1745–1761. [2] [7]
- Mooney, W.D., Andrews, M.C., Ginzburg, A., Peters, D.A., and Hamilton, R.M., 1983, Crustal structure of the northern Mississippi embayment and a comparison with other continental rift zones: *Tectonophysics*, v. 94, p. 327–348, doi:10.1016/0040-1951(83)90023-9. [2] [7]
- Mooney, W.D., Gettings, M.E., Blank, H.R., and Healy, J.H., 1985, Saudi Arabian seismic-refraction profile: a traveltime interpretation of crust and upper mantle structure: *Tectonophysics*, v. 111, p. 173–246, doi:10.1016/0040-1951(85)90287-2. [2] [7]
- Mooney, W.D., Laske, G., and Masters, T.G., 1998, CRUST 5.1: A global crustal model at 5°×5°: *Journal of Geophysical Research*, v. 103, p. 727–747, doi:10.1029/97JB02122. [2] [9] [10]
- Mooney, W.D., Prodehl, C., and Pavlenkova, N.I., 2002, Seismic velocity structure of the continental lithosphere from controlled source data, in Lee, W., Kanamori, H., Jennings, P.C., and Kisslinger, C., eds., International Handbook of Earthquake and Engineering Seismology, Part A: Amsterdam, Academic Press, p. 887–910. [2] [8] [9] [10]
- Moore, J.C., Diebold, J., Fisher, M.A., Sample, J., Brocher, T., Talwani, M., Ewing, J., von Huene, R., Rowe, C., Stone, D., Stevens, C., and Sawyer, D., 1991, EDGE deep seismic reflection transect of the eastern Aleutian arch-trench layered lower crust reveals underplating and continental growth: *Geology*, v. 19, p. 420–424, doi:10.1130/0091-7613(1991)019<0420:EDSRTO>2.3.CO;2. [9]
- Moores, E.M., 1973, Geotectonic significance of ultramafic rocks: *Earth-Science Reviews*, v. 9, p. 241–258, doi:10.1016/0012-8252(73)90093-7. [7]
- Moreira, V.S., Mueller, St., Mendes, A.S., Prodehl, C., 1977, Crustal structure of southern Portugal, Proceedings of the 15th General Assembly of European Seismological Commission (Krakow, 1976): Publications of the Institute of Geophysics, Polish Academy of Sciences, A-4(115), part I, p. 413–426. [2] [7]
- Morelli, C., 1993, Risultati di 31 anni (1956–1986) di DSS e 7 anni (1986–1992) di CROP in Italia: Atti XII° Convegno GNGTS, CNR Roma, p. 3–30. [7] [8]
- Morelli, C., 2003, A historical perspective to the CROP project, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, v. 62, p. 1–7. [7]
- Morelli, C., and Nicolich, R., 1980, Evolution and tectonics of the western Mediterranean and surrounding areas: Instituto Geográfico Nacional Madrid, publ. no. 201, p. 1–65. [2] [7]
- Morelli, C., and Nicolich, R., 1990, A cross section of the lithosphere along the European Geotraverse southern segment (from the Alps to Tunisia), in Freeman, R., and Mueller, St., eds., The European Geotraverse, Part 6: *Tectonophysics*, v. 176, p. 229–243. [8]
- Morelli, C., Bellomo, S., Finetti, I., and de Visintini, G., 1967, Preliminary depth contour maps for the Conrad and Moho discontinuities in Europe: *Bollettino di Geofisica Teorica e Applicata*, v. 9, p. 142–157. [2] [6] [10]
- Morelli, C., Giese, P., Carrozzo, M.T., Colombi, B., Gurra, I., Hirn, A., Letz, H., Nicolich, R., Prodehl, C., Reichert, C., Röwer, P., Sapin, M., Scarascia, S., and Wipper, P., 1977, Crustal and upper mantle structure of the northern Apennines, the Ligurian Sea, and Corsica, derived from seismic and gravimetric data: *Bollettino di Geofisica Teorica e Applicata*, v. 19, p. 199–260. [2] [6] [7]

- Morewood, N.C., Shannon, P.M., Mackenzie, G.D., O'Reilly, B.M., Jacob, A.W.B., and Makris, J., 2003, Deep seismic experiments investigate crustal development at continental margins: *Eos (Transactions, American Geophysical Union)*, v. 84, p. 225, 228. [9] [10]
- Morgan, J.V., and Barton, P.J., 1990, A geophysical study of the Hatton bank volcanic margin: a summary of the results of a combined seismic, gravity and magnetic experiment, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins: Tectonophysics*, v. 173, p. 517–526. [2] [8]
- Morgan, J.V., Christeson, G.L., and Zelt, C.A., 2002, Testing the resolution of a 3D velocity tomogram across the Chicxulub crater: *Tectonophysics*, v. 355, p. 215–226, doi:10.1016/S0040-1951(02)00143-9. [9]
- Morgan, J.V., Warner, M., Urrutia-Fucugauchi, J., Gulick, S., Christeson, G., Barton, P., Rebolledo-Vieyra, M., and Melosh, J., 2005, Chicxulub crater seismic survey prepares way for future drilling: *Eos (Transactions, American Geophysical Union)*, v. 86, no. 36, p. 325, 328. [2] [9]
- Moriya T., Okada, H., Matsuhima, T., Asano, S., Yoshii, T., and Ikami, A., 1998, Collision structure in the upper crust beneath the southwestern foot of the Hidaka Mountains Hokkaido, Japan, as derived from explosion seismic observations: *Tectonophysics*, v. 290, p. 181–196, doi:10.1016/S0040-1951(98)00011-0. [8]
- Morozov, I.B., Smithson, S.B., Hollister, L.S., and Diebold, J.B., 1998, Wide-angle seismic imaging across accreted terranes, southeastern Alaska and western British Columbia: *Tectonophysics*, v. 299, p. 281–296, doi:10.1016/S0040-1951(98)00208-X. [9]
- Morozov, I.B., Smithson, S.B., Chen, J., and Hollister, L.S., 2001, Generation of new continental crust and terrane accretion in southeastern Alaska and western British Columbia: *Tectonophysics*, v. 341, p. 49–67, doi:10.1016/S0040-1951(01)00190-1. [9]
- Morozova, E.A., Morozov, I.B., and Smithson, S.B., 1999, Heterogeneity of the uppermost mantle beneath Russian Eurasia from the ultra-long-range profile QUARTZ: *Journal of Geophysical Research*, v. 104, p. 20,329–20,348, doi:10.1029/1999JB900142. [8]
- Morozova, E.A., Wan, X., Chamberlain, K.R., Smithson, S.B., Johnson, R., and Karlstrom, K.E., 2005, Inter-wedging nature of the Cheyenne belt—Archean-Proterozoic suture defined by seismic reflection data, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 217–226. [9]
- Morris, G.B., Raftt, R.W., and Shor, G.G., 1969, Velocity anisotropy and delay time maps of the mantle near Hawaii: *Journal of Geophysical Research*, v. 74, p. 4300–4316, doi:10.1029/JB074i017p04300. [6] [7]
- Morton, J.L., and Sleep, N.H., 1985, Seismic reflection from a Lau Basin magma chamber, in Scholl, D.W., and Vallier, T.L., eds., *Geology and offshore resources of Pacific island arcs—Tonga region*. Earth Science Series, vol. 2, p. 441–453, Circum-Pacific Council for Energy and Mineral Resources, Houston, Texas. [2] [8]
- Morton, J.L., Sleep, N.H., Normark, W.R., and Tompkins, D.H., 1987, Structure of the southern Juan de Fuca Ridge from seismic reflection records: *Journal of Geophysical Research*, v. 92, p. 11315–11326, doi:10.1029/JB092iB11p11315. [2] [8]
- Moss, F.J., and Dooley, J.C., 1988, Deep crustal reflection recordings in Australia 1957–1973, I. Data acquisition and presentation: *Geophysical Journal of the Royal Astronomical Society*, v. 93, p. 229–237. [2] [5] [6] [7]
- Moss, F.J., and Mathur, S.P., 1986, A review of continental reflection profiling in Australia, in Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, Geodynamics Series, v. 13, p. 67–76. [2] [7] [8]
- Mostaanpour, M.M., 1984, Einheitliche Auswertung krustenseismischer Daten in Westeuropa: Darstellung von Krustenparametern und Laufzeitanomalien: Berliner Geowissenschaftliche Abhandlungen, Reihe B, Band 10: 90 p. [7]
- Mothes, H., 1929, Neue Ergebnisse der Eisseismik: *Zeitschrift für Geophysik*, v. 5, p. 120. [3]
- Mueller, S., ed., 1973, The structure of the earth's crust based on seismic data: *Tectonophysics*, v. 20, 391 p. [2]
- Mueller, S., and Landisman, M., 1966, Seismic studies of the earth's crust in continents; part I: Evidence for a low-velocity zone in the upper part of the lithosphere: *Geophysical Journal of the Royal Astronomical Society*, v. 10, p. 525–538. [4] [6]
- Mueller, St., Peterschmitt, E., Fuchs, K., and Ansorge, J., 1967, The rift structure of the crust and upper mantle beneath the Rhinegraben. Rhinegraben Progress Report 1967, Abh. geol. Landesamt Baden-Württemberg, 6, p. 108–113. [7]
- Mueller, S., Prodehl, C., Mendes, A.S. Moreira, V.S., 1973, Crustal structure in the southwestern part of the Iberian peninsula, in Mueller, St., ed., *The structure of the earth's crust based on seismic data: Tectonophysics*, v. 20, p. 307–318. [7]
- Mueller, S., Prodehl, C. Mendes, A.S. Moreira, V.S., 1974, Deep-seismic sounding experiments in Portugal: *Proceedings of the 13th General Assembly of European Seismological Commission (Brasov 1972)*, Techn. Econ. Studies, Bukarest, ser. D, no. 10, part II, 339–349. [7]
- Mueller, S., Ansorge, J., Egloff, R., and Kissling, E., 1980, A crustal cross section along the Swiss Geotraverse from the Rhinegraben to the Po Plain: *Eclogae Geologicae Helvetiae*, v. 73, p. 463–483. [7]
- Muirhead, K.J., and Simpson, D.W., 1972, A three-quarter watt seismic station: *Bulletin of the Seismological Society of America*, v. 62, p. 985–990. [7]
- Muirhead, K.J., Cleary, J.R., and Finlayson, D.M., 1977, A long-range seismic profile in southeastern Australia: *Geophysical Journal of the Royal Astronomical Society*, v. 48, p. 509–520. [7]
- Müller, G., 1970, Exact ray theory and its application to the reflection of elastic waves from vertically inhomogeneous media: *Geophysical Journal of the Royal Astronomical Society*, v. 21, p. 261–283. [6]
- Müller, G., and Fuchs, K., 1976, Inversion of seismic records with the aid of synthetic seismograms, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 178–188. [6]
- Müller, H.K., 1934, Beobachtung der Bodenbewegung in drei Komponenten bei Sprengungen: *Zeitschrift für Geophysik*, v. 10, p. 40–58. [3]
- Muller, M.R., Robinson, C.J., Minshull, T.A., White, R.S., and Bickle, M.J., 1997, Thin crust beneath Ocean Drilling Program borehole 735B at the Southwest Indian Ridge?: *Earth and Planetary Science Letters*, v. 148, p. 93–107, doi:10.1016/S0012-821X(97)00030-7. [2] [9]
- Muller, M.R., Minshull, T.A., and White, R.S., 1999, Segmentation and melt supply at the Southwest Indian Ridge: *Geology*, v. 27, p. 867–870, doi:10.1130/0091-7613(1999)027<0867:SAMSAT>2.3.CO;2. [2] [9]
- Murauchi, S., Den, N., Asano, S., Hotta, H., Yoshii, T., Asanuma, T., Hagiwara, K., Ichikawa, K., Sato, T., Ludwig, W.J., Ewing, J.I., Edgar, N.T., and Houtz, R.E., 1968, Crustal structure of the Philippine Sea: *Journal of Geophysical Research*, v. 73, no. 10, p. 3143–3171, doi:10.1029/JB073i010p03143. [2] [6]
- Murphy, J.M., 1988, USGS FM cassette seismic-refraction recording system: Menlo Park, California, U.S. Geological Survey Open-File Report 88-570, 43 p. [2] [7] [8]
- Murphy, J.M., 1990, Data report for the Great Valley, California, axial seismic refraction profiles: Menlo Park, California, U.S. Geological Survey Open-File Report 89-494, 36 p. [8]
- Murphy, J.M., and Luetgert, J.H., 1986, Data report for the Maine-Quebec cross-strike seismic-refraction profile: Menlo Park, California, U.S. Geological Survey Open-File Report 86-47, 71 p. [8]
- Murphy, J.M., and Luetgert, J.H., 1987, Data report for the 1984 Maine along-strike seismic-refraction profiles: Menlo Park, California, U.S. Geological Survey Open-File Report 87-133, 134 p. [8]
- Murphy, J.M., and Walter, A.W., 1984, Data report for a seismic refraction investigation: Morro Bay to the Sierra Nevada, California: Menlo Park, California, U.S. Geological Survey Open-File Report 84-642, 37 p. and 12 plates. [2] [8]
- Murphy, J.M., Catchings, R.D., Kohler, W.M., Fuis, G.S., and Eberhart-Phillips, D., 1992, Data report for 1991 active-source seismic profiles in the San Francisco Bay Area, California: U.S. Geological Survey Open-File Report 92-570, 45 p. [9]
- Murphy, J.M., Fuis, G.S., Levander, A.R., Lutter, W.J., Criley, E.E., Hentys, S.A., Asudeh, I., and Fowler, J.C., 1993, Data report for a 1990 seismic reflection/refraction experiment in the Brooks Range, Arctic Alaska: Menlo Park, California, U.S. Geological Survey Open-File Report 93-265, 128 p. [8] [9]
- Murphy, J.M., Fuis, G.S., Okaya, D.A., Thygesen, K., Baher, S.A., Ryberg, T., Kaip, G., Fort, M.D., Asudeh, I., and Sell, R., 2002, Report for borehole explosion data acquired in the 1999 Los Angeles Region Seismic Experiment (LARSE II), southern California: Part 2, data tables and plots. U.S. Geological Survey Open-File Report 02-179, 252 p. [9]
- Musacchio, G., Mooney, W.D., Luetgert, J.H., and Christensen, N.I., 1997, Composition of the crust in the Grenville and Appalachian provinces of North America inferred from V_p/V_s ratios: *Journal of Geophysical Research*, v. 102, p. 15,225–15,241, doi:10.1029/96JB03737. [8]

- Musacchio, G., White, D.J., Asudeh, I., and Thomson, C.J., 2004, Lithospheric structure and composition of the Archean western Superior Province from seismic refraction/wide-angle reflection and gravity modelling: *Journal of Geophysical Research*, v. 109, B3, B03304 10.1029/2003JB002427. [2] [9]
- Musgrave, A.W., 1967, Seismic refraction prospecting: Tulsa, Oklahoma, The Society of Exploration Geophysicists, 604 p. (Section 1: History of early refraction work, p. 1–11). [2] [3] [10]
- Mutter, C.Z., and Mutter, J.C., 1993, Variations in thickness of layer 3 dominate oceanic crustal structure: *Earth and Planetary Science Letters*, v. 117, p. 295–317, doi:10.1016/0012-821X(93)90134-U. [8]
- Mutter, J.C., and Jongsma, D., 1978, The pattern of the pre-Tasman Sea rift system and the geometry of breakup: *Bulletin of the Australian Society of Exploration Geophysicists*, v. 9, p. 70–75, doi:10.1071/EG978070. [7]
- Mutter, J.C., and Karner, G.D., 1979, The continental margin off northeast Australia, in Stephenson, P.J., and Henderson, R.A., eds., *Geophysics and Geology of Northeast Australia: Geological Society of Australia (Queensland Division)*, p. 47–69. [6]
- Mutter, J.C., and NATO Study Group, 1985, Multichannel seismic images of the oceanic crust's internal structure: evidence for a magma chamber beneath the Mesozoic Mid-Atlantic Ridge: *Geology*, v. 9, p. 629–632, doi:10.1130/0091-7613(1985)13<629:MSIOT0>2.0.CO;2. [8]
- Mutter, J.C., Larson, R.L., and Northwest Australia Study Group, 1989, Extension of the Exmouth Plateau, offshore northwestern Australia: Deep seismic reflection/refraction evidence for simple and pure shear mechanism: *Geology*, v. 17, p. 15–18, doi:10.1130/0091-7613(1989)017<0015:EOTEPO>2.3.CO;2. [2] [8]
- Nafe, J.E., and Drake, C.L., 1957, Variation with depth in shallow and deep water marine sediments of porosity, density and the velocities of compressional and shear waves: *Geophysics*, v. 22, p. 523–552, doi:10.1190/1.1438386. [5]
- Nafe, J.E., and Drake, C.L., 1963, Physical properties of marine sediments, in Hill, M.N., ed., *The Sea* v. 3., The earth beneath the Sea: New York-London, Interscience Publ., p. 794–815. [5]
- Nagumo, S., Ouchi, T., Kasahara, J., Koresawa, S., Tomoda, Y., Kobayashi, K., Furumoto, A.S., Odegard, M.E., and Sutton, G.H., 1981, Sub-Moho seismic profile in the Mariana Basin-ocean bottom seismograph long-range explosion experiment: *Earth and Planetary Science Letters*, v. 53, p. 93–102, doi:10.1016/0012-821X(81)90030-3. [2] [7]
- Nakamura, Y., Donoho, P.L., Roper, P.H., and McPherson, P.M., 1987, Large-offset seismic surveying using ocean bottom seismographs and airguns: instrumentation and field techniques: *Geophysics*, v. 52, p. 1601–1611, doi:10.1190/1.1442277. [8]
- Nakanishi, A., Kurashimo, E., Tatsumi, Y., Yamaguchi, H., Miura, S., Kodaira, S., Obana, K., Takahashi, N., Tsuru, T., Kaneda, Y., Iwasaki, T., and Hirata, N., 2009, Crustal evolution of the southwestern Kuril Arc, Hokkaido Japan, deduced from seismic velocity and geochemical structure: *Tectonophysics*, v. 472, p. 105–123, doi:10.1016/j.tecto.2008.03.003. [2] [9]
- Narans, H.D. Jr., Berg, J.W., Cook, K.L., 1961, Sub-basement seismic reflections in northern Utah: *Journal of Geophysical Research*, v. 66, p. 599–603. [6]
- Nataf, H.-C., and Ricard, Y., 1996, 3SMAC: An a priori tomographic model of the upper mantle based on geophysical modelling: *Physics of the Earth and Planetary Interiors*, v. 95, p. 101–122, doi:10.1016/0031-9201(95)03105-7. [10]
- NAT Study Group, 1985, North Atlantic Transect: a wide-aperture, two-ship multichannel seismic investigation of the oceanic crust: *Journal of Geophysical Research*, v. 90, p. 10,321–10,341, doi:10.1029/JB090iB12p10321. [2] [8]
- Navin, D., Peirce, C., and Sinha, M.C., 1998, The RAMESSES experiment—II. Evidence for accumulated melt beneath a slow spreading ridge from wide-angle refraction and multichannel reflection seismic profiles: *Geophysical Journal International*, v. 135, p. 746–772, doi:10.1046/j.1365-246X.1998.00709.x. [2] [9]
- Nelson, K.D., Lillie, R., de Voogd, B., Brewer, J., Oliver, J., Kaufman, S., Brown, L., and Viele, G.W., 1982, COCORP seismic reflection profiling in the Ouachita Mountains of western Arkansas: geometry and geologic interpretation: *Tectonics*, v. 1, p. 413–430, doi:10.1029/TC001i005p00413. [2] [8]
- Nelson, K.D., Arnow, J.A., McBride, J.H., Willemann, R.J., Oliver, J., Brown, L., and Kaufman, S., 1985, New COCORP profiling on the southeastern U.S. coastal plains, part I: Late Paleozoic suture and Mesozoic rift basin: *Geology*, v. 13, p. 714–717, doi:10.1130/0091-7613(1985)13<714:NCP1TS>2.0.CO;2. [2] [8]
- Nelson, K.D., McBride, J.H., Arnow, J.A., Wille, D.M., Brown, L., Oliver, J., and Kaufman, S., 1987, Results of recent COCORP profiling in the southeastern United States: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 141–146. [8]
- Nelson, K.D., Zhao, W., Brown, L.D., Kuo, J., Che, J., Liu, X., Klemperer, S.L., Makovsky, Y., Meissner, R., Mechle, J., Kind, R., Wenzel, F., Ni, J., Nabelek, J., Leshou, C., Tan, H., Wei, W., Jones, A.G., Booker, J., Unsworth, M., Kidd, W.S.F., Hauck, M., Alsdorf, D., Ross, A., Cogan, M., Wu, C., Sandvol, E., and Edwards, M., 1996, Partially molten middle crust beneath southern Tibet: synthesis of project INDEPTH results: *Science*, v. 274, p. 1684–1688, doi:10.1126/science.274.5293.1684. [2] [9]
- Nemeth, B., and Hajnal, Z., 1998, Structure of the lithospheric mantle beneath the Trans-Hudson orogen, Canada, in Klemperer, S.L., and Mooney, W.D., eds., *Deep seismic probing of the continents, II: a global survey: Tectonophysics*, v. 288, p. 93–104. [9]
- Nemeth, B., Hajnal, Z., and Lucas, S.B., 1996, Moho signature from wide-angle reflections: preliminary results of the 1993 Trans-Hudson Orogen refraction experiment: *Tectonophysics*, v. 264, p. 111–121, doi:10.1016/S0040-1951(96)00121-7. [9]
- Nemeth, B., Clowes, R.M., and Hajnal, Z., 2005, Lithospheric structure of the Trans-Hudson Orogen from seismic refraction-reflection studies: *Canadian Journal of Earth Science*, v. 42, p. 435–456, doi:10.1139/e05-032. [2] [9]
- Neprochnov, Yu.P., 1960, On the Choice of Optimal Explosion Conditions during Marine Seismic Refraction Studies: *Razvedochnaya i Promyslovaya Geofizika*, No. 35, 12–15. [5]
- Neprochnov, Yu.P., 1989, Study of the lower crust and upper mantle using ocean bottom seismographs, in Mereu, R.F., Mueller, St., and Fountain, D.M., eds., *Properties and processes of earth's lower crust: American Geophysical Union, Geophysical Monograph* 51, p. 159–168. [2] [7] [8]
- Neprochnov, Yu.P., El'nikov, I.N., and Kholopov, B.V., 1967, The structure of the earth's crust in the Indian Ocean according to results of seismic investigations carried out during the 36th voyage of the survey vessel "Vityaz": *Dokl. Acad. Nauk SSSR*, v. 174, no. 2, p. 429–431. [6]
- Neprochnov, Yu.P., Rykunov, L.N., and Sedov, V.V., 1968, Experience of the Application of Automated Bottom Seismographs during Deep Seismic Sounding Studies: *Izv. AN SSSR, Fiz. Zem.*, no. 11, 25–35. [6]
- Neprochnov, Yu.P., Kosminskaya, I.P., and Malovitsky, Ya.P., 1970, Structure of the crust and upper mantle of the Black and Caspian Seas: *Tectonophysics*, v. 10, p. 517–525, 531–538. [6]
- Nercessian, A., Mauffret, A., Dos Reis, T., Vidal, N., Gallart, J., and Díaz, J., 2001, Deep reflection seismic images of the crustal thinning in the eastern Pyrenees and western Gulf of Lion: *Journal of Geodynamics*, v. 31, p. 211–225, doi:10.1016/S0264-3707(00)00029-6. [2] [9]
- Nettleton, L.L., 1940, Geophysical prospecting for oil: New York, McGraw-Hill, 444 p. (History of seismic prospecting, p. 232–234). [2] [3] [10]
- Neves, F., and Singh, S.C., 1996, Sensitivity study of seismic reflection/refraction data: *Geophysical Journal International*, v. 126, p. 470–476, doi:10.1111/j.1365-246X.1996.tb05303.x. [9]
- Nicolas, A., Hirn, A., Nicolich, R., and Poolini, R., 1990, Lithospheric wedging in the Western Alps inferred from the ECORS-CROP traverse: *Geology*, v. 18, p. 587–590, doi:10.1130/0091-7613(1990)018<0587:LWITWA>2.3.CO;2. [8]
- Nicolich, R., Laigle, M., Hirn, A., Cernobori, L., and Gallart, J., 2000, Crustal structure of the Ionian margin of Sicily: Etna volcano in the frame of regional evolution: *Tectonophysics*, v. 329, p. 121–139, doi:10.1016/S0040-1951(00)00192-X. [9]
- Nielsen, C., Sandrin, A., Nielsen, L., and Thybo, H., 2006, Reflection seismic image of a large mafic batholith—the ESTRID 2005 profile: European Geophysical Union, Annual Meeting 2006, *Geophysical Research Abstracts*, v. 8, 05963. [10]
- Nishizawa, A., and Suyehiro, K., 1986, Crustal structure across the Kuril Trench off southeastern Hokkaido by airgun-OBS profiling: *Geophysical Journal of the Royal Astronomical Society*, v. 86, p. 371–397. [8]
- Nolet, G., Dost, B., and Paulssen, H., 1986, Intermediate wavelength seismology and the NARS experiment: *Annales. Geophys.*, v. 4, p. 305–314. [8]
- Novak, O., Prodehl, C., Jacob, B., and Okoth, W., 1997a, Crustal structure of the Chyulu Hills, southeastern Kenya, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics*, v. 278, p. 171–186. [9]
- Novak, O., Ritter, J.R.R., Altherr, R., Garasic, V., Volker, F., Kluge, C., Kaspar, T., Byrne, G.F., Sobolev, S.V., and Fuchs, K., 1997b, An integrated model for the deep structure of the Chyulu Hills volcanic field, Kenya, in Fuchs,

- K., Altherr, R., Müller, B., and Prodehl, C., eds., Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: *Tectonophysics*, v. 278, p. 187–209. [9]
- Nyblade, A.A., and Langston, C.A., 2002, Broadband seismic experiments probe the East African rift: *Eos (Transactions, American Geophysical Union)*, v. 83, no. 37, p. 405, 408–409, doi:10.1029/2002EO000296. [9]
- Nyblade, A.A., Birt, C., Langston, C.A., Owens, T.J., and Last, R.J., 1996, Seismic experiment reveals rifting of craton in Tanzania: *Eos (Transactions, American Geophysical Union)*, v. 77, p. 517, 521. [9]
- O'Brien, P.N.S., 1968, Lake Superior crustal structure—a reinterpretation of the 1963 seismic experiment: *Journal of Geophysical Research*, v. 73, p. 2669–2689, doi:10.1029/JB073i008p02669. [6]
- Ocola, L.C., and Meyer, R.P., 1972, Crustal low-velocity zones under the Peru-Bolivia Altiplano: *Geophysical Journal of the Royal Astronomical Society*, v. 30, p. 199–209. [2] [6] [9]
- Officer, C.B., Jr., 1955a, A deep-sea seismic reflection profile: *Geophysics*, v. 20, p. 270–282, doi:10.1190/1.1438139. [5]
- Officer, C.B., Jr., 1955b, Southwest Pacific crustal structure: *American Geophysical Union Transactions*, v. 36, p. 449–459. [2] [5]
- Officer, C.B., 1974, Introduction to theoretical geophysics: New York-Heidelberg-Berlin, Springer, 385 p. [2] [10]
- Officer, C.B., and Ewing, M., 1954, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part VII: continental shelf, continental slope, and continental rise south of Nova Scotia: *Bulletin of the Geological Society of America*, v. 65, p. 653–670, doi:10.1130/0016-7606(1954)65[653:GHTEA]2.0.CO;2. [2] [5]
- Officer, C.B., Ewing, M., and Wunschel, P.C., 1952, Seismic refraction measurements in the Atlantic Ocean, Part IV: Bermuda, Bermuda Rise and Nares Basin: *Bulletin of the Geological Society of America*, v. 63, p. 777–808, doi:10.1130/0016-7606(1952)63[777:SRMITA]2.0.CO;2. [2] [3] [4] [5]
- Officer, C.B., Ewing, J.I., Hennion, J.F., Harkrider, D.G., and Miller, D.E., 1959, Geophysical investigations in the eastern Caribbean: Summary of 1955 and 1956 cruises: London, Pergamon Press, Physics and Chemistry of the Earth, v. 3, p. 17–109. [5]
- Oh, J., Phillips, J.D., Austin, J.A.Jr., and Stoffa, P.L., 1991, Deep penetration seismic reflection images across the United States continental margin, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., Continental lithosphere: deep seismic reflections: American Geophysical Union, Geodynamics Series, v. 22, p. 225–240. [2] [8]
- Ohmura, T., Moriya, T., Piao, C., Iwasaki, T., Yoshii, T., Sakai, S., Takeda, T., Miyashita, K., Yamazaki, F., Ito, K., Yamazaki, A., Shimada, Y., Tashiro, K., and Miyamachi, H., 2001, Crustal structure in and around the region of the 1995 Kobe Earthquake deduced from a wide-angle and refraction seismic exploration: Island Arc, v. 10, p. 215–227, doi:10.1046/j.1440-1738.2001.00319.x. [2] [9]
- Okada, H., Suzuki, S., Moriya, T., and Asano, S., 1973, Crustal structure in the profile across the southern part of Hokkaido, Japan, as derived from explosion seismic observations: *Journal of the Physics of the Earth*, v. 21, p. 329–354. [2] [6] [9]
- Okada, H., Moriya, T., Masuda, T., Hasegawa, T., Asano, S., Kasahara, K., Ikami, A., Aoki, H., Sasaki, Y., Hurukawa, N., and Matsumura, K., 1978, Velocity anisotropy in the Sea of Japan as revealed by big explosions: *Journal of the Physics of the Earth*, v. 26 Suppl., p. S491–S502. [2] [7]
- Okada, H., Asano, S., Yoshii, T., Ikami, A., Suzuki, S., Hasegawa, T., Yamamoto, K., Ito, K., and Hamada, K., 1979, Regionality of the upper mantle around northeastern Japan as revealed by big explosions at sea: I. SEIHA-I explosion experiment: *Journal of the Physics of the Earth*, v. 27, p. S15–S32 pl. [2] [7]
- Okaya, D., Henrys, S., and Stern, T., 2002, Double-sided onshore-offshore seismic imaging of a plate boundary: “super-gathers” across South Island, New Zealand: *Tectonophysics*, v. 355, p. 247–263, doi:10.1016/S0040-1951(02)00145-2. [9]
- Okaya, D., Stern T., Davey F., Henrys, S., and Cox, S., 2007, Continent-continent collision at the Pacific/Indo-Australian plate boundary: background, motivation, and principal results, in Okaya, D., Stern T., and Davey F., eds., A continental plate boundary: tectonics at South Island, New Zealand: Washington, D.C., American Geophysical Union, Geophysical Monograph 175, p. 1–18. [9]
- O’Leary, D.M., Clowes, R.M., and Ellis, R.M., 1993, Crustal velocity structure in the southern Coast Belt, British Columbia: *Canadian Journal of Earth Science*, v. 30, p. 2389–2403. [8]
- Oliver, H.W., Pakiser, L.C., and Kane, M.F., 1961, Gravity anomalies in the central Sierra Nevada, California: *Journal of Geophysical Research*, v. 66, p. 4265–4271, doi:10.1029/JZ066i012p04265. [5]
- Oliver, J.E., 1986, A global perspective on seismic reflection profiling of the continental crust, in Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, Geodynamics Series, v. 13, p. 5–19. [2] [7]
- Oliver, J.E., 1996, Shocks and rocks—seismology in the plate tectonics revolution: Washington, D.C., American Geophysical Union, *History of Geophysics*, v. 6, 139 p. [7]
- Oliver, J.E., and Kaufman, S., 1976, Profiling the Rio Grande rift: *Geotimes*, v. 21, p. 20–23. [7]
- Oliver, J.E., Dobrin, M., Kaufman, S., Meyer, R., and Phinney, R., 1976, Continuous seismic reflection profiling of the deep basement, Hardeman county, Texas: *Geological Society of America Bulletin*, v. 87, p. 1537–1546, doi:10.1130/0016-7606(1976)87<1537:CSRPO>2.0.CO;2. [2] [7] [8]
- Olsen, K.H., 1983, The role of seismic refraction data for studies of the origin and evolution of continental rifts: *Tectonophysics*, v. 94, p. 349–370, doi:10.1016/0040-1951(83)90024-0. [7]
- Olsen, K.H., ed., 1995, *Continental rifts: Evolution, structure, tectonics*: Amsterdam, Elsevier, 466 p. [2] [8] [9]
- Olsen, K.H., Keller, G.R., and Stewart, J.N., 1979, Crustal structure along the Rio Grande rift from seismic refraction profiles, in Riecker, R.E., ed., *Rio Grande rift: tectonics and magmatism*: Washington, D.C., American Geophysical Union, p. 127–144. [2] [7]
- Olsen, K.H., Cash, D.J., and Stewart, J.N., 1982, Mapping the northern and eastern extent of the Socorro midcrustal magma body by wide-angle seismic reflections: *New Mexico Geological Society Guidebook*, 33rd field conference, Albuquerque country II, p. 179–186. [7]
- Olsen, K.H., Braile, L.W., Stewart, J.N., Daudt, C.R., Keller, G.R., Ankeny, L.A., and Wolff, J.J., 1986, Jemez Mountains volcanic field, New Mexico: time-term interpretation of the CARDEX seismic experiment and comparison with Bouguer gravity: *Journal of Geophysical Research*, v. 91, p. 6175–6187. [8] [9]
- Operto, S., and Charvis, P., 1996, Deep structure of the southern Kerguelen plateau (southern Indian Ocean) from ocean bottom seismometer wide angle data: *Journal of Geophysical Research*, v. 101, p. 25,077–25,103, doi:10.1029/96JB01758. [2] [9]
- Orcutt, J.A., 1987, Structure of the earth: oceanic crust and uppermost mantle: *Reviews of Geophysics*, v. 25, p. 1177–1196, doi:10.1029/RG025i006p01177. [2] [8]
- Orcutt, J.A., and Dorman, L.M., 1977, An oceanic long range explosion experiment: *Journal of Geophysics*, v. 43, p. 257–263. [2] [7]
- Orcutt, J.A., Kennett, B.L.N., Dorman, L.M., and Prothero, W.A., 1975, Evidence for a low-velocity zone underlying a fast-spreading rise crest: *Nature*, v. 256, p. 475–476, doi:10.1038/256475a0. [7] [8]
- Orcutt, J.A., Kennett, B.L.N., and Dorman, L.M., 1976, Structure of the East Pacific Rise from an ocean bottom seismometer survey: *Geophysical Journal of the Royal Astronomical Society*, v. 45, p. 305–320. [2] [6] [7]
- Orcutt, J.A., Jordan, T.H., Menard, H.W., and Natland, J., 1983, Ngendei seismic experiment: refraction and reflection studies: *Eos (Transactions, American Geophysical Union)*, v. 64, p. 269. [8]
- Orcutt, J.A., McClai, J.S., and Burnett, M., 1984, Seismic constraints on the generation, evolution and structure of the oceanic crust, in Gass, G.I., Lippard, S.J., and Shelton, A.W., eds., *Ophiolites and oceanic lithosphere*. Special Publication Geological Society London, Blackwell Science Publ., Oxford, v. 13, p. 7–16. [2] [8]
- O'Reilly, B.M., Shannon, P.M., and Vogt, U., 1991, Seismic studies in the North Celtic Sea basin: implications for basin development: *Journal of the Geological Society London*, v. 148, p. 191–195, doi:10.1144/gsjgs.148.1.0191. [2] [8]
- O'Reilly, B.M., Hauser, F., Jacob, A.W.B., Shannon, P.M., Makris, J., and Vogt, U., 1995, The transition between the Erris and the Rockall basins: new evidence from wide-angle seismic data: *Tectonophysics*, v. 241, p. 143–163, doi:10.1016/0040-1951(94)00166-7. [8] [10]
- O'Reilly, B.M., Hauser, F., Jacob, A.W.B., and Shannon, P.M., 1996, The lithosphere below the Rockall Trough: wide-angle seismic evidence for extensive serpentization: *Tectonophysics*, v. 255, p. 1–23, doi:10.1016/0040-1951(95)00149-2. [8] [10]
- O'Reilly, B.M., Hauser, F., Ravaut, C., Shannon, P.M., and Readman, P.W., 2006, Crustal thinning, mantle exhumation and serpentization in the Porcupine Basin, offshore Ireland: evidence from wide-angle seismic data:

- Journal of the Geological Society, v. 163, p. 775–787, doi:10.1144/0016-76492005-079. [2] [10]
- Osler, J.C., and Louden, K.E., 1992, Crustal structure of an extinct rift axis in the Labrador Sea: preliminary results from a seismic refraction survey: Earth and Planetary Science Letters, v. 108, p. 243–258, doi:10.1016/0012-821X(92)90026-R. [2] [8]
- Ostrovsky, A.A., 1993, Study of the earth's crust deep seismic structure along the Baltic Sea profile: Institute Oceanology Russian Academy of Science and GEOMAR, Kiel, unpublished report. [2] [8]
- Owen, T.R.E., and Barton, P.J., 1990, The Cambridge digital seismic recorder for land and marine use, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., Seismic probing of continents and their margins: Tectonophysics, v. 173, p. 145–154. [8]
- Owens, T.J., and Zandt, G., 1997, Implications of crustal property variations for models of Tibetan Plateau evolution: Nature, v. 387, p. 37–43, doi:10.1038/387037a0. [9]
- Ozel, O., Iwasaki, T., Moriya, T., Sakai, S., Maeda, T., Piao, C., Yoshii, T., Tsukada, S., Ito, A., Suzuki, M., Yamazaki, A., and Miyamachi, H., 1999, Crustal structure of central Japan and its petrological implications: Geophysical Journal International, v. 138, p. 257–274, doi:10.1046/j.1365-246x.1999.00859.x. [9]
- Page, B.M., and Brocher, T.M., 1993, Thrusting of the central California margin over the edge of the Pacific plate during the transform regime: Geology, v. 21, p. 635–638, doi:10.1130/0091-7613(1993)021<0635:TOTCCM>2.3.CO;2. [9]
- Pakiser, L.C., 1961, Gravity, volcanism, and crustal deformation in Long Valley, California: U.S. Geological Survey Professional Paper 424-B, p. 250–253. [5]
- Pakiser, L.C., 1963, Structure of the crust and upper mantle in the western United States: Journal of Geophysical Research, v. 68, p. 5747–5756. [2] [6]
- Pakiser, L.C., and Hill, D.P., 1963, Crustal structure in Nevada, and southern Idaho from nuclear explosions: Journal of Geophysical Research, v. 68, p. 5757–5766. [6]
- Pakiser, L.C., and Mooney, W.D., eds., 1989, Geophysical framework of the continental United States: Geological Society of America Memoir 172, 826 p. [2] [8]
- Pakiser, L.C., and Steinhart, J.S., 1964, Explosion seismology in the western hemisphere, in Odishaw, H., ed., Research in Geophysics, Vol. 2, Solid Earth and Interface Phenomena, MIT Press, Cambridge, p. 123–147. [6]
- Pakiser, L.C., and Zietz, I., 1965, Transcontinental crustal and upper-mantle structure. Reviews in Geophysics, v. 3, p. 505–520, doi:10.1029/RG003i004p00505. [6]
- Pakiser, L.C., Press, F., and Kane, M.F., 1960, Geophysical investigation of Mono Basin, California: Geological Society of America Bulletin, v. 71, p. 415–448, doi:10.1130/0016-7606(1960)71[415:GIOMBC]2.0.CO;2. [5]
- Palmason, G., 1971, Crustal structure of Iceland from explosion seismology: Societas Scientiarum Islandica, Reykjavik, Iceland, 187 p. [7]
- Palomeras, I., Carbonell, R., Flecha, I., Simancas, F., Ayarza, P., Matas, J., Martinez Poyatos, D., Azor, A., Gonzales Lodeiro, F., and Perez-Estaun, A., 2009, Nature of the lithosphere across the Variscan orogen of SW Iberia: Dense wide-angle seismic reflection data: Journal of Geophysical Research, v. 114: B02302, doi:10.1029/2007JB005050. [2] [10]
- Panea, I., Stephenson, R., Knapp, C., Mocanu, V., Drijkoningen, G., Matenco, V., Knapp, J., and Prodehl, C., 2005, Near-vertical seismic reflection image using a novel acquisition technique across the Vrancea Zone and Foscani Basin, southeastern Carpathians (Romania), in Cloetingh, S., Matenco, L., Bada, G., Dinu, C., and Mocanu, V., eds., The Carpathians-Pannonian Basin System: Natural Laboratory for Coupled Lithospheric-Surface Processes: Tectonophysics, v. 410, p. 293–310. [9] [10]
- Park, J.-O., Tsuru, T., Kodaira, S., Cummins, P.R., and Kaneda, Y., 2002, Splay fault branching along the Nankai subduction zone: Science, v. 297, p. 1157–1160, doi:10.1126/science.1074111. [2] [9] [10]
- Parotto, M., Cavinato, G.P., Miccadei, E., and Tozzi, M., 2003, Line CROP 11: Central Apennines, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia, Roma, 62, p. 145–154. [9]
- Parsiegla, N., Gohl, K., and Uenzelmann-Neben, G., 2007, Deep crustal structure of the sheared South African continental margin: first results of the Agulhas-Karoo Geoscience Transect: South African Journal of Geology, v. 110, no. 2-3, p. 393–406, doi:10.2113/gssajg.110.2-3.393. [2] [10]
- Parsons, E., ed., 2002, Crustal structure of the coastal and marine San Francisco Bay region, California: U.S. Geological Survey Professional Paper 1658, 145 p. [9]
- Parsons, T., 1998, Seismic reflection evidence that the Hayward fault extends into the lower crust of the San Francisco Bay area, California: Bulletin of the Seismological Society of America, v. 88, p. 1212–1223. [9]
- Parsons, T., and Zoback, M.L., 1997, Three-dimensional upper crustal velocity structure beneath San Francisco Peninsula, California: Journal of Geophysical Research, v. 102, p. 5473–5490, doi:10.1029/96JB03222. [9]
- Parsons, T., McCarthy, J., Kohler, W.M., Ammon, C.J., Benz, H.M., Hole, J.A., and Criley, E.E., 1996, Crustal structure of the Colorado Plateau, Arizona: Application of new long-offset seismic data analysis techniques: Journal of Geophysical Research, v. 101, p. 11,173–11,194, doi:10.1029/95JB03742. [8]
- Parsons, T., Trehu, A.M., Luetgert, J.H., Miller, K.C., Kilbride, F., Wells, R.E., Fisher, M.A., Flueh, E., ten Brink, U.S., and Christensen, N.I., 1998, A new view into the Cascade subduction zone and volcanic arc: implications for earthquake hazards along the Washington margin: Geology, v. 26, p. 199–202, doi:10.1130/0091-7613(1998)026<0199:ANVITC>2.3.CO;2. [9]
- Parsons, T., Wells, R.E., Trehu, A.M., Fisher, M.A., Flueh, E., and ten Brink, U.S., 1999, Three-dimensional velocity structure of Siletzia and other accreted terranes in the Cascadia forearc of Washington: Journal of Geophysical Research, v. 104, p. 18,015–18,039, doi:10.1029/1999JB900106. [9]
- Pascal, G., Torné, M., Buhl, P., Watts, A.B., and Mauffret, A., 1992, Crustal and velocity structure of the Valencia trough (western Mediterranean). Part I. Detailed interpretation of five Expanding Spread Profiles, in Banda, E., and Santanach, P., eds., Geology and Geophysics of the Valencia Trough, Western Mediterranean: Tectonophysics, v. 203, no. 1-4, p. 21–35. [2] [8]
- PASSCAL Working Group, 1988, The 1986 PASSCAL Basin and Range lithospheric seismic experiment: Eos (Transactions, American Geophysical Union), v. 69, p. 593, 596–598, doi:10.1029/88EO00174. [8]
- Patzwahl, R., 1998, Plattengeometrie und Krustenstruktur am Kontinentalrand Nord-Chiles aus weitwinkelseismischen Messungen: Berliner Geowissenschaftliche Abhandlungen, Reihe B30, 150 p. [8] [9]
- Patzwahl, R., Mechic, J., Schulze, A., and Giese, P., 1999, Two-dimensional velocity models of the Nazca plate subduction zone between 19.5°S and 25°S from wide-angle seismic measurements during the CINCA95 project: Journal of Geophysical Research, v. 104, p. 7293–7317, doi:10.1029/1999JB900008. [2] [9]
- Pavlenkova, N.I., 1996, Crust and upper mantle structure in northern Eurasia from seismic data: Advances in Geophysics, v. 37, p. 1–133, doi:10.1016/S0065-2687(08)60269-1. [2] [5] [6] [7] [8] [10]
- Pavlenkova, N.I., Solodilov, L.N., and Mooney, W.D., 1993, 1993 CCSS Workshop proceedings volume. [9] [10]
- Pavlenkova, N.I., Pilipenko, V.N., Verpakhovskaya, A.O., Pavlenkova, G.A., and Filonenko, V.P., 2009, Crustal structure in Chile and Okhotsk Sea regions: Tectonophysics, v. 472, p. 28–38, doi:10.1016/j.tecto.2008.08.018. [5]
- Peddy, C.P., Pinet, B., Masson, D., Scrutton, R., Sibuet, J.C., Warner, M.R., Lefort, J.P., and Shroeder, I.J., (BIRPS and ECORS), 1989, Crustal structure of the Goban Spur continental margin, Northeast Atlantic, from deep reflection profiling: Journal of the Geological Society of London, v. 146, p. 427–437. [2] [8]
- Peirce, C., and Barton, P. J., 1991, Crustal structure of the Madeira-Tore Rise, eastern North Atlantic—results of a DOBS wide-angle and normal incidence seismic experiment in the Josephine Seamount region: Geophysical Journal International, v. 106, p. 357–378, doi:10.1111/j.1365-246X.1991.tb03898.x. [2] [8]
- Percival, J.A., ed., 1994, The Kapuskasing Transect of LITHOPROBE: Canadian Journal of Earth Science, v. 31, p. 1013–1286, doi:10.1139/e94-091. [2] [8]
- Percival, J.A., and Helmstaedt, H., eds., 2006, The Western Superior Province Lithoprobe and NATMAP transects: Canadian Journal of Earth Science, v. 43, p. 743–1117, doi:10.1139/E06-063. [2]
- Percival, J.A., Shaw, D.M., Milkereit, B., et al., 1991, A closer look at deeper crustal reflections: Eos (Transactions, American Geophysical Union), v. 72, p. 337–340, doi:10.1029/90EO10264. [8]
- Perez-Estaun, A., Pulgar, J.A., Banda, E., Alvarez-Manon, J., and ESCI-N Research Group, 1994, Crustal structure of the external Variscides in northwest Spain from deep seismic reflection profiling: Tectonophysics, v. 232, p. 91–118, doi:10.1016/0040-1951(94)90078-7. [9]

- Perkins, W.E., and Phinney, R.A., 1971, A reflection study in the Wind River uplift, Wyoming: American Geophysical Union Monograph 14, p. 41–50. [2] [6]
- Perrier, G., and Ruegg, J.C., 1973, Structure profonde du Massif Central français: Annales de Géophysique, v. 29, p. 435–502. [2] [6] [7]
- Peterschmitt, E., Menzel, H., and Fuchs, K., 1965, Seismische Messungen in den Alpen. Die Beobachtungen auf dem dem NE-Profil Lago Lagorai 1962 und ihre vorläufige Auswertung: Zeitschrift für Geophysik, v. 31, p. 41–49. [6]
- Petkovic, P., Collins, C.D.N., and Finlayson, D.M., 2000, A crustal transect between Precambrian Australia and the Timor Trough across the Vulcan Sub-basin: Tectonophysics, v. 329, p. 23–38, doi:10.1016/S0040-1951(00)00186-4. [2] [9]
- Phinney, R.A., 1986, A seismic cross section of the New England Appalachians: the orogen exposed, in Barazangi, M., and Brown, L., eds., Reflection seismology: the continental crust: American Geophysical Union, Geodynamics Series, v. 14, p. 157–172. [7]
- Phinney, R.A., and Roy-Chowdhury, K., 1989, Reflection seismic studies of crustal structure in the eastern United States, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 613–653. [2] [7] [8] [9]
- Pilger, A., and Rösler, A., eds., 1975, Afar Depression of Ethiopia: Stuttgart, Schweizerbart, 410 p. [7]
- Pilger, A., and Rösler, A., eds., 1976, Afar between continental and oceanic rifting: Stuttgart, Schweizerbart, 216 p. [7]
- Pinet, B., Montadert, L., and ECORS Scientific Party, 1987, Deep seismic reflection and refraction profiling along the Aquitaine shelf (Gulf of Biscay): Geophysical Journal of the Royal Astronomical Society, v. 89, p. 305–312. [2] [8]
- Pinet, B., Sibuet, J.-C., Lefort, J.-P., Shroeder, I.J., and Montadert, L., 1991, Structure profonde de la marge des entrées de la Manche et du plateau continental celtique: le profil WAM: Mémoires de la Société Géologique de France, v. 159, p. 167–183. [8]
- Plafker, G., and Mooney, W.D., 1997, Introduction to the special section: The Trans-Alaska Crustal Transect (TACT) across Arctic Alaska: Journal of Geophysical Research, v. 102, p. 20,639–20,643, doi:10.1029/97JB01048. [2] [8]
- Podvin, P., and Lecomte, I., 1991, Finite difference computation of traveltimes in very contrasted velocity models: a massively parallel approach and its associated tools: Geophysical Journal International, v. 105, p. 271–284, doi:10.1111/j.1365-246X.1991.tb03461.x. [9]
- Poehls, K.A., 1974, Seismic refraction on the Mid-Atlantic Ridge at 37°N: Journal of Geophysical Research, v. 79, p. 3370–3373, doi:10.1029/JB079i023p03370. [7]
- Poldervaart, A., ed., 1955, Crust of the earth (a symposium): Geological Society of America Special Paper 62, p. 762. [2][4]
- Pontoise, B., and Latham, G., 1982, Etude par refraction de la structure interne de l'arc des Tonga, in Contribution à l'Etude Géodynamique du Sud-Ouest Pacifique, ORSTOM Institute, Paris, p. 237–254. [10]
- Pope, K.O., Ocampo, A.C., Kinsland, G.L., and Smith, R., 1996, Surface expression of the Chicxulub crater, Mexico: Geology, v. 24, p. 527–530, doi:10.1130/0091-7613(1996)024<0527:SEOTCC>2.3.CO;2. [9]
- Potter, C.J., Sanford, W.E., Yoos, T.R., Prussen, E.I., Keach, R.W., II, Oliver, J.E., Kaufman, S., and Brown, L.D., 1986, COCORP deep seismic reflection traverse of the interior of the North American cordillera, Washington and Idaho: implications for orogenic evolution: Tectonics, v. 5, p. 1007–1026, doi:10.1029/TC005i007p01007. [2] [8]
- Potter, C.J., Allmendinger, R.W., Hauser, E.C., and Oliver, J.E., 1987, COCORP deep seismic reflection traverses of the U.S. Cordillera: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 99–104. [8]
- Powell, C.M.R., Sinha, M.C., Carter, P.W., and Leonard, J.R., 1986, A sea-bottom multichannel hydrophone array: Marine Geophysical Researches, v. 8, p. 277–292, doi:10.1007/BF00305487. [8]
- Pratt, T.L., Coruh, C., and Costain, J.K., 1987, Lower crustal reflections in central Virginia: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 163–170. [8]
- Pratt, T.L., Coruh, C., and Costain, J.K., 1988, A geophysical study of the Earth's crust in central Virginia: implications for Appalachian crustal structure: Journal of Geophysical Research, v. 93, p. 6649–6667, doi:10.1029/JB093iB06p06649. [2] [8]
- Pratt, T.L., Meagher, K.L., Brocher, T.M., Yelin, T., Norris, R., Hultgrien, L., Barnett, E., and Weaver, C.S., 2003, Earthquake recordings from the 2002 Seattle seismic hazard investigation of Puget Sound (SHIPS), Washington State: Menlo Park, California, U.S. Geological Survey Open-File Report 03-361, 72 p. [10]
- Press, F., 1960, Crustal structure in the California-Nevada region: Journal of Geophysical Research, v. 65, p. 1039–1051, doi:10.1029/JZ065i003p01039. [5]
- Press, F., and Beckmann, W., 1954, Geophysical investigations in the emerged and submerged Atlantic coastal plain, Part VIII: Grand Banks and adjacent shelves: Bulletin of the Geological Society of America, v. 65, p. 299–314, doi:10.1130/0016-7606(1954)65[299:GITEA]2.0.CO;2. [2] [5]
- Priestley, K., Davey, F.J., 1983, Crustal structure of Fiordland, south western New Zealand from seismic refraction measurements: Geology, v. 11, p. 660–663, doi:10.1130/0091-7613(1983)11<660:CSOFSN>2.0.CO;2. [7]
- Prodehl, C., 1964, Auswertung von Refraktionsbeobachtungen im bayerischen Alpenvorland (Steinbruchspregungen bei Eschenlohe 1958–1961) in Hinblick auf die Tieflage des Grundgebirges: Zeitschrift für Geophysik, v. 30, p. 161–181. [6]
- Prodehl, C., 1965, Struktur der tieferen Erdkruste in Südbayern und längs eines Querprofiles durch die Ostalpen, abgeleitet aus refraktionsseismischen Messungen bis 1964: Bollettino di Geofisica Teorica e Applicata, v. 7, p. 35–88. [2] [6]
- Prodehl, C., 1970, Seismic refraction study of crustal structure in the western United States. Geological Society of America Bulletin, v. 81, p. 2629–2646, doi:10.1130/0016-7606(1970)81[2629:SRSOCS]2.0.CO;2. [6] [7]
- Prodehl, C., 1976, Record sections for selected local earthquakes recorded by the Central California Microearthquake Network: Menlo Park, California, U.S. Geological Survey Open-File Report 77-37, 310 p. [7]
- Prodehl, C., 1977, The structure of the crust–mantle boundary beneath different tectonic areas of North America and Europe as derived from explosion seismology, in Heacock, J.G., ed.: The earth's crust: American Geophysical Union Geophysical Monograph, v. 20, p. 349–369. [6] [7]
- Prodehl, C., 1979, Crustal structure of the western United States—a reinterpretation of seismic-refraction measurements from 1961 to 1963 in comparison with the crustal structure of central Europe: U.S. Geological Survey Professional Paper 1034, 74 p. [2] [6] [7] [8]
- Prodehl, C., 1984, Structure of the earth's crust and upper mantle, in Hellwege, K.-H., editor in chief, Landolt-Börnstein New Series: Numerical data and functional relationships in science and technology. Group V, Volume 2a: K. Fuchs and H. Soffel, eds., Physical properties of the interior of the earth, the moon and the planets: Berlin-Heidelberg, Springer, p. 97–206. [2] [7] [10]
- Prodehl, C., 1985, Interpretation of a seismic refraction survey across the Arabian Shield in western Saudi Arabia: Tectonophysics, v. 111, p. 247–282, doi:10.1016/0040-1951(85)90288-4. [7]
- Prodehl, C., 1998, Crustal record sections—a guide to pattern recognition: Open-File Report, Geophysical Institute, University of Karlsruhe, 131 p. [2]
- Prodehl, C., and Aichroth, B., 1992, Seismic investigations along the European Geotraverse in Central Europe, in Kern, H., and Gueguen, Y., eds., Structure and composition of the lower continental crust: Terra Nova, v. , p. 14–24. [8]
- Prodehl, C., and Lipman, P.W., 1989, Crustal structure of the Rocky Mountain region, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 249–284. [5] [6] [7] [8] [9]
- Prodehl, C., and Mechie, J., 1991, Crustal thinning in relationship to the evolution of the Afro-Arabian rift system—a review of seismic-refraction data, in Makris, J., Mohr, P., and Rihm, R., eds., Red Sea: Birth and early history of a new oceanic basin: Tectonophysics, v. 198, p. 311–327. [8]
- Prodehl, C., and Pakiser, L.C., 1980, Crustal structure of the southern Rocky Mountains from seismic measurements: Geological Society of America Bulletin, v. 91(I), p. 147–155, doi:10.1130/0016-7606(1980)91<147:CSOTSR>2.0.CO;2. [2] [6] [7]
- Prodehl, C., Moreira, V.S., Mueller, S., and Mendes, A.S., 1975, Deep-seismic sounding experiments in central and southern Portugal: Proceedings of the 14th General Assembly of the European Seismological Commission (Trieste 1974), Akad. Wiss. DDR, Berlin, p. 261–266. [7]
- Prodehl, C., Ansorge, J., Edel, J.B., Emter, D., Fuchs, K., Mueller, St., and Peterschmitt, E., 1976a, Explosion-seismology research in the central and southern Rhinegraben—a case history, in Giese, P., Prodehl, C., and Stein, A., eds., Explosion seismology in central Europe—data and results: Berlin-Heidelberg-New York, Springer, p. 313–328. [4] [6] [7]

- Prodehl, C., Hirn, A., Kind, R., Steinmetz, L., and Fuchs, K., 1976b, Elastic properties of the lower lithosphere obtained by large-scale seismic experiments in France, in Strens, R.G.J., ed., *The physics and chemistry of rocks and minerals*: New York-London-Sydney, John Wiley and Sons Ltd., p. 239–243. [7]
- Prodehl, C., Schlittenhardt, J., Stewart, S.W., 1984, Crustal structure of the Appalachian Highlands in Tennessee, in Zwart, H.J., Behr, H.J., Oliver, J.E., eds., *Appalachian and Hercynian fold-belts: Tectonophysics*, v. 109, p. 61–76. [2] [6] [7] [9]
- Prodehl, C., Keller, G.R., Khan, M.A., eds., 1994a, Crustal and upper mantle structure of the Kenya rift: *Tectonophysics*, v. 236, no. 1-4, 483 p. [2] [6] [9]
- Prodehl, C., Mechie, J., Achauer, U., Keller, G.R., Khan, M.A., Mooney, W.D., Gaciri, S.J., and Obel, J.D., 1994b, The KRISP 90 seismic experiment—a technical review, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., Crustal and upper mantle structure of the Kenya rift: *Tectonophysics*, v. 236, p. 33–60. [9]
- Prodehl, C., Jacob, B., Thybo H., Dindi, E., and Stangl, R., 1994c, Crustal structure of the northeastern flank of the Kenya rift, in C. Prodehl, G.R. Keller, and M.A. Khan, eds., Crustal and upper mantle structure of the Kenya rift: *Tectonophysics*, v. 236, p. 271–290. [9]
- Prodehl, C., Mueller, St., and Haak, V., 1995, The European Cenozoic rift system, in Olsen, K.H., ed., *Continental rifts: evolution, structure, tectonics*: Amsterdam, Elsevier, p. 133–212. [2] [7] [9]
- Prodehl, C., Fuchs, K., and Mechic, J., 1997a, Seismic-refraction studies of the Afro-Arabian rift system—a brief review, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics*, v. 278, p. 1–13. [2] [6] [9]
- Prodehl, C., Ritter, J.R.R., Mechic, J., Keller, G.R., Khan, M.A., Jacob, B., Fuchs, K., Nyambok, I.O., Obel, J.D., and Riarioh, D., 1997b, The KRISP 94 lithospheric investigation of southern Kenya—the experiments and their main results, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system: Tectonophysics*, v. 278, p. 121–147. [9]
- Prodehl, C., Johnson, R.A., Keller, G.R., Snelson, C. and Rumpel, H.-M., 2005, Background and overview of previous controlled source seismic studies, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 201–216. [6] [9]
- Prosen, D., Milovanovic, B., and Roksandic, M., 1972, Yugoslavia, in Sollogub, V.B., Prosen, D., and Militzer, H., eds., *Crustal structure of central and southeastern Europe based on the results of explosion seismology* (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: *Geophysical Transactions*, spec. ed., Müszaki Könyvkiado, Budapest, chapter 25, p. 99–105. [2] [6]
- Pulgar, J.A., Gallart, J., Fernandez-Viejo, G., Perez-Estaun, A., Alvarez-Manon, J., and ESCIN Group, 1996, Seismic image of the Cantabrian Mountains in the western extension of the Pyrenean belt from integrated reflection and refraction data: *Tectonophysics*, v. 264, p. 1–19, doi:10.1016/S0040-1951(96)00114-X. [9]
- Purdy, G.M., 1982, The variability in seismic structure of layer 2 near the East Pacific Rise at 12°N: *Journal of Geophysical Research*, v. 87, p. 8403–8416, doi:10.1029/JB087iB10p08403 [7]
- Purdy, G.M., 1986, A determination of the seismic velocity structure of sediments using both sources and receivers near the ocean floor: *Marine Geophysical Researches*, v. 8, p. 75–91, doi:10.1007/BF02424829. [8]
- Purdy, G.M., and Detrick, R.S., 1986, Crustal structure of the Mid-Atlantic Ridge at 23°N from seismic refraction studies: *Journal of Geophysical Research*, v. 91, p. 3739–3762, doi:10.1029/JB091iB03p03739. [8]
- Puzyrev, N.N., Mandelbaum, N.N., Krylov, S.V., Mishenkin, B.P., Krupskaya, G.V., and Petrick, G.V., 1973, Deep seismic investigations in the Baikal rift zone: *Tectonophysics*, v. 20, p. 85–95, doi:10.1016/0040-1951(73)90098-X. [6]
- Puzyrev, N.N., Mandelbaum, N.N., Krylov, S.V., Mishenkin, B.P., Petrick, G.V., and Krupskaya, G.V., 1978, Deep structure of the Baikal and other continental rift zones from seismic data: *Tectonophysics*, v. 45, p. 15–22, doi:10.1016/0040-1951(78)90219-6. [6]
- Quinlan, G., ed., 1998, Lithoprobe East transect: *Canadian Journal of Earth Science*, v. 35, p. 1203–1346, doi:10.1139/cjess-35-11-1203. [2]
- Radulescu, D.P., Cornea, I., Sandulescu, M., Constantinescu, P., Radulescu, F., and Pompilian, A., 1976, Structure de la croûte terrestre en Roumanie: Essai d'interprétation des études sismiques profondes: *Anuarul Institutului de Geologie și Geofizică*, v. 50, p. 5–36. [2] [7]
- Radulescu, F., and Pompilian, A., 1991, Twenty-five years of deep seismic soundings in Romania (1966–1990): *Rev. Roum. Géophysique*, Bucharest, v. 35, p. 89–97. [6]
- Rai, S.S., Priestley, K., Gaur, V.K., Singh, M.P., and Searle, M., 2006, Configuration of the Indian Moho beneath the NW Himalaya and Ladakh: *Geophysical Research Letters*, v. 33, L15308, doi:10.1029/2006GL026076. [2] [9]
- Raileanu, V., Bala, A., Hauser, F., Prodehl, C. and Fielitz, W., 2005, Crustal properties from S-wave and gravity data along a seismic refraction profile in Romania, in Cloetingh, S., Matenco, L., Bada, G., Dinu, C., and Mocanu, V., eds., *The Carpathians-Pannonian Basin System: Natural Laboratory for Coupled Lithospheric-Surface Processes: Tectonophysics*, v. 410, p. 251–272. [9]
- Raitt, R.W., 1949, Studies of ocean-bottom structure off southern California with explosive waves: *Bulletin of the Geological Society of America*, v. 60 (12.2): 1915. [2] [4]
- Raitt, R.W., 1956, Seismic refraction studies of the Pacific Ocean basin, Part I: Crustal thickness of the central equatorial Pacific: *Bulletin of the Geological Society of America*, v. 67, p. 1623–1640, doi:10.1130/0016-7606 (1956)67[1623:SSOTPO]2.0.CO;2. [2] [4] [5]
- Raitt, R.W., 1963, The crustal rocks, in Hill, M.N., ed., *The Sea*, vol.3. Interscience Publ., New York-London, p. 85–102. [2] [5] [6] [10]
- Raitt, R.W., 1964, Geophysics of the South Pacific, in Odishaw, H., ed., *Research in Geophysics*, Vol. 2, Solid Earth and Interface Phenomena, MIT Press, Cambridge, p. 223–241. [2] [5] [6]
- Raitt, R.W., Fisher, R.L., and Mason, R.G., 1955, Tonga trench, in Poldervaart, A., ed., *Crust of the earth (a symposium)*: Geological Society of America Special Paper 62, p. 237–254. [5] [10]
- Raitt, R.W., Shor, G.G., Francis, T.J., and Morris, G.B., 1969, Anisotropy of the Pacific upper mantle: *Journal of Geophysical Research*, v. 74, p. 3095–3109, doi:10.1029/JB074i012p03095. [6] [7]
- Raitt, R.W., Shor, Jr., G.G., Morris, G.B., and Kirk, H.K., 1971, Mantle anisotropy in the Pacific Ocean: *Tectonophysics*, v. 12, p. 173–186, doi:10.1016/0040-1951(71)90002-3. [2] [6] [7]
- Rajendra Prasat, B., Tewari, H.C., Vijaya Rao, V., Dixit, M.M., and Reddy, P.R., 1998, Structure and tectonics of the Proterozoic Aravalli-Delhi fold belt in northwestern India from deep seismic reflection studies, in Klempner, S.L., and Mooney, W.D., eds., *Deep seismic probing of the continents, II: a global survey: Tectonophysics*, v. 288, p. 31–41. [2] [9]
- Ramsay, D.C., Colwell, J.B., Coffin, M.F., Davies, H.L., Hill, P.J., Pigram, C.J., and Stagg, H.M. J., 1986, New findings from the Kerguelen Plateau: *Geology*, v. 14, p. 589–593, doi:10.1130/0091-7613(1986)14<589:NFFTKP>2.0.CO;2. [2] [8]
- Rankin, D.S., Ravindra, R., and Zwicker, D., 1969, Preliminary interpretation of the first refraction arrivals in Gaspe from shots in Labrador and Quebec: *Canadian Journal of Earth Science*, v. 6, p. 771–774. [6]
- Ransome, C.R., 1979, A crustal model for Cardigan Bay: *Geophysical Journal of the Royal Astronomical Society*, v. 57, p. 254. [2] [7]
- Rao, G.S.P., and Tewari, H.C., 2005, The seismic structure of the Saurashtra crust in northwest India and its relationship with the Reunion plume: *Geophysical Journal International*, v. 160, p. 318–330. [7]
- Ratcliffe, N.M., Burton, W.D., D'Angelo, R.M., and Costain, J.K., 1986, Low-angle extensional faulting, reactivated mylonites, and seismic reflection geometry of the Newark basin margin in eastern Pennsylvania: *Geology*, v. 14, p. 766–770, doi:10.1130/0091-7613(1986)14<766:LEFRMA>2.0.CO;2. [2] [8]
- Raum, T., Mjelde, R., Digranes, P., Shimamura, H., Shiobara, H., Kodaira, S., Haatvedt, G., Sorenes, N., and Thorbjornsen, S., 2002, Crustal structure of the southern part of the Voring Basin, mid-Norway margin, from wide-angle seismic and gravity data: *Tectonophysics*, v. 355, p. 99–126, doi:10.1016/S0040-1951(02)00136-1. [2] [9] [10]
- Reddy, P.R., Rajendra Prasat, B., Vijaya Rao, V., Kare, P., Kesava Rao, G., Murty, A.S.N., Sarkar, D., Raju, S., Rao, G.S.P., and Sridhar, V., 1995, Deep seismic reflection profiling along the Nandi-Kunjer section of Nagaur-Jhalawar transect: preliminary results, in Sinha-Roy, S., and Gupta, K.R., eds., *Continental crust of northwestern and central India: Geological Society India, Memoir 31*, p. 353–372. [9]
- Reich, H., 1937, Erfahrungen mit dem seismischen Refraktionsverfahren bei der geophysikalischen Reichsaufnahme: Beiträge zur angewandten Geophysik, 7, p. 1–16. [3]

- Reich, H., 1953, Über seismische Beobachtungen der Prakla an Reflexionen aus grosser Tiefe bei den Steinbruchspregungen in Blaubeuren am 4.3. und 10.5. 1952, Geologisches Jahrbuch, v. 68, p. 225–240. [2] [5] [6]
- Reich, H., 1958, Seismische und geologische Ergebnisse der 2 to-Sprengung im Tiefbohrloch Tölz I am 11.12.54: Geologisches Jahrbuch, v. 75, p. 1–46. [5]
- Reich, H., 1960, Zur Frage der geologischen Deutung seismischer Grenzflächen in den Alpen: Geologische Rundschau, v. 50, p. 465–473, doi:10.1007/BF01786862. [5]
- Reich, H., Schulze, G.A., and Förtsch, O., 1948, Das geophysikalische Ergebnis der Sprengung von Haslach im südlichen Schwarzwald: Geologische Rundschau, v. 36, p. 85–96, doi:10.1007/BF01791919. [2] [4]
- Reich, H., Förtsch, O., and Schulze, G.A., 1951, Results of seismic observations in Germany on the Heligoland explosion of April 18, 1947: Journal of Geophysics Research, v. 56, p. 147–156, doi:10.1029/JZ056i002p00147. [2] [4]
- Reichert, J.C., 1993, Ein geophysikalischer Beitrag zur Erkundung der Tiefenstruktur des Nordwestdeutschen Beckens längs des refraktionsseismischen Profils NORDDEUTSCHLAND 1975/76: Geologisches Jahrbuch, E, v. 50, 87 p. [2] [7]
- Reid, I.D., 1988, Crustal structure beneath the southern Grand Banks: Seismic refraction results and their implications: Canadian Journal of Earth Science, v. 25, p. 760–772. [8]
- Reid, I.D., 1994, Crustal structure of a non-volcanic rifted margin east of Newfoundland: Journal of Geophysical Research, v. 99, p. 15,161–15,180, doi:10.1029/94JB00935. [8]
- Reinhardt, H.G., 1954, Steinbruchspregungen zur Erforschung des tieferen Untergrundes. Freiberger Forschungsh., C15, p. 9–91. [2] [3] [4] [5] [10]
- Research Group for Explosion Seismology, 1951, Explosion-seismic observations: Bulletin of the Earthquake Research Institute, Tokyo, v. 29, p. 97–105. [2] [5]
- Research Group for Explosion Seismology, 1952, 1953, 1954, Explosion-seismic observations: Bulletin of the Earthquake Research Institute, Tokyo, v. 30, p. 279–292; 31, p. 281–289; 32, p. 79–86. [5]
- Research Group for Explosion Seismology, 1958, Crustal Structure in Northern Kwantu District by Explosion Seismic Observations. Part I Description of Explosions and Observations: Bulletin of the Earthquake Research Institute, Tokyo, v. 36, p. 329–348. [5]
- Research Group for Explosion Seismology, 1959, Observations of seismic Waves from the Second Hokoda Explosion: Bulletin of the Earthquake Research Institute, Tokyo, v. 37, p. 495–508. [5]
- Research Group for Explosion Seismology, 1966a, Explosion seismological research in Japan, in Steinhart, J.S., and Smith, T.J., eds., The earth beneath the continents: American Geophysical Union, Washington, D.C., Geophysical Monograph 10, p. 334–348. [2] [6]
- Research Group for Explosion Seismology, 1966b, Crustal structure in the western part of Japan derived from the observation of the first and second Kurayoshi and Hanabusa explosions, Zisin, v. 19, p. 107–124. [2] [6]
- Research Group for Explosion Seismology, 1973, Crustal structure of Japan as derived from explosion seismic data, in Mueller, S., ed., The structure of the earth's crust, based on seismic data: Tectonophysics, v. 20, p. 129–135. [2] [6] [7]
- Research Group for Explosion Seismology, 1975, Regionality of the upper mantle in northeastern Japan from experiments of large shots at sea: Marine Science Month, v. 7, p. 672–677 (in Japanese with English abstract). [7]
- Research Group for Explosion Seismology, 1977, Regionality of the upper mantle around northeastern Japan as derived from explosion seismic observations and its seismological implications: Tectonophysics, v. 37, p. 117–130, doi:10.1016/0040-1951(77)90042-7. [7]
- Research group for Explosion Seismology, 1992a, Explosion seismic observation on the Kii peninsula, southwestern Japan (Kawachinagano-Kiwa profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 67, p. 37–56. [2] [8]
- Research Group for Explosion Seismology, 1992b, Explosion seismic observations in the Kitakami region: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 67, p. 437–461. [8] [9]
- Research Group for Explosion Seismology, 1993, Explosion seismic observations in the Hokkaido region, Japan (Tsubetsu and Mombetsu profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 68, p. 209–229 (in Japanese). [9]
- Research Group for Explosion Seismology, 1994, Explosion seismic observations in the center of Honshu, Japan (Agatsuma-Kanazawa profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 69 (in Japanese). [2] [9]
- Research Group for Explosion Seismology, 1995, Explosion seismic observation in the central to western part of Honshu, Japan. Fujihashi-Kamigori profile: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 70, p. 9 ff (in Japanese). [2] [8] [9]
- Research Group for Explosion Seismology, 1996, Seismic refraction experiment in the northern Kanto district (Shimogo-Kiryu profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 71, p. 73–101 (in Japanese). [2] [9]
- Research Group for Explosion Seismology, 1997, Seismic refraction experiment in and around a source region of the 1995 Kobe earthquake (Keihoku-Seidan profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 72, p. 69–117 (in Japanese). [2] [9]
- Research Group for Explosion Seismology, 1999, Seismic refraction/wide-angle experiment across the northern Honshu arc: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 74, p. 63–122 (in Japanese). [9]
- Research Group for Explosion Seismology, 2002a, Seismic refraction/wide-angle experiment across the foreland area of the Hikada collision zone, Hokkaido, Japan (Ohtaki-Urahoro profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 77, p. 139–172 (in Japanese). [9]
- Research Group for Explosion Seismology, 2002b, Seismic refraction/wide-angle experiment across the foreland area of the Hikada collision zone, Hokkaido, Japan (Ohtaki-Biratori profile): Bulletin of the Earthquake Research Institute, University of Tokyo, v. 77, p. 173–198 (in Japanese). [9]
- Research Group for Explosion Seismology, 2008, Dense seismic refraction/wide-angle reflection experiment in the eastern flank of the Ou backbone range, northern Honshu, Japan: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 83, p. 43–75. [2] [9]
- Research Group for Lithospheric Structure in Tunisia, 1992, The EGT'85 seismic experiment in Tunisia: a reconnaissance of the deep structures, in Freeman, R., and Mueller, St., eds., The European Geotraverse, Part 8: Tectonophysics, v. 207, p. 245–267. [2] [8]
- Research Group on Underground Structure in the Kobe-Hanshin Area, 1997, Seismic refraction experiment in the Kobe-Hanshin area: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 72, p. 1–18 (in Japanese). [2] [9]
- Reston, T.J., Gaw, V., Pennell, J., Klaeschen, D., Stubenrauch, A., and Walker, I., 2004, Extreme crustal thinning in the south Porcupine Basin and the nature of the Porcupine Median High: implications for the formation of non-volcanic rifted margins: Journal of the Geological Society, London, v. 161, p. 1–16, doi:10.1144/0016-764903-036. [2] [9] [10]
- Reston, T., Baxmann, M., Brunn, W., Chabert, A., Fekete, N., Gernigon, L., Hasenclever, J., Ingenfeld, R., Ivanova, A., Jones, S., Klein, G., Kriwanek, S., Liersch, P., Neiss, H., Ochsenhirt, W.T., Rogers, E., Steffen, K.P., Thierer, P., Thurow, U., Wagner, G., and Weiland, H., 2006, Changes in structure of the Earth's crust associated with progressive extension of the Porcupine Rift Basin, in Hebbeln, D., Pfannkuche, O., Reston, T., and Ratmeyer, V., eds., Northeast Atlantic 2004, Meteor-Berichte M61, no. 06-2. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, p. 2-1–2-32. [2] [10]
- Reston, T., Bialas, J., DaCosta, J., Fekete, N., Hacker, S., Hagen, C., Hopper, J., Jacobsen, I., Jones, S., Klaeschen, D., Maczassek, K., Netzeband, G., Oestmann, F., Orth, S., Planert, L., Schwenk, A., Thurow, U., Vinding Fallesen, M., Winkler, V., Zamora, N., and Zillmer, M., 2009, Geophysical studies near the Ascension Transform: Evolution of ridge segmentation and crustal structure, in Steinfeld, R., Rhein, M., Brandt, P., Grevemeyer, I., Reston, T., Devey, C., and Lackschewitz, K., eds., Oceanography, geology and geophysics of the South Equatorial Atlantic. Meteor-Berichte M62, no. 09-1. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, p. 4-1–4-8. [2] [10]
- Reutter, K.-J., ed., 1999, Central Andean deformation: Journal of South American Earth Science, v. 12, p. 99–235. [2]
- Reyners, M.E., Eberhart-Phillips, D., Stuart, G., and Nishimura, Y., 2006, Imaging subduction from the trench to 300 km depth beneath the central North Island, New Zealand, with V_p and V_p/V_s : Geophysical Journal International, v. 165, no. 2, p. 565–583, doi:10.1111/j.1365-246X.2006.02897.x. [10]
- Reynolds, C.A., 1978, Boundary conditions for the numerical solution of wave propagation problems: Geophysics, v. 43, p. 1099–1110, doi:10.1190/1.1440881. [9]

- Rhinegraben Research Group for Explosion Seismology, 1974, The 1972 seismic refraction experiment in the Rhinegraben—first results, in Illies J.H., and Fuchs, K., eds., *Approaches to taphrogenesis*: Stuttgart, Schweizerbart, p. 122–137. [7]
- Richardson, K.R., Smallwood, J.R., White, R.S., Snyder, D., and Maguire, P.K.H., 1998, Crustal structure beneath the Faeroe islands and the Faeroe-Iceland Ridge: *Tectonophysics*, v. 300, p. 159–180, doi:10.1016/S0040-1951(98)00239-X. [9]
- Rietbrock, A., Haberland, C., Bataille, K., Dahm, T., and Oncken, O., 2005, Studying the seismogenic coupling zone with a passive seismic array: *Eos (Transactions, American Geophysical Union)*, v. 86, no. 32, p. 293, 297. [2] [9] [10]
- Rihm, R., Makris, J., and Möller, L., 1991, Seismic surveys in the northern Red Sea: asymmetric crustal structure, in Makris, J., Mohr, P., and Rihm, R., eds., *Red Sea: birth and early history of a new oceanic basin*: *Tectonophysics*, v. 198, p. 279–295. [2] [7] [8]
- Ritter, J.R.R., 2001, Students explore history of the Göttingen institute of geophysics: *Eos (Transactions, American Geophysical Union)*, v. 82, p. 224, doi:10.1029/01EO00123. [3]
- Ritter, J.R.R., and Achauer, U., 1994, Crustal tomography of the central Kenya rift, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., *Crustal and upper mantle structure of the Kenya rift*: *Tectonophysics*, v. 236, p. 291–304. [9]
- Ritter, J.R.R., and Kaspar, T., 1997, A tomography study of the Chyulu Hills, Kenya, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system*: *Tectonophysics*, v. 278, p. 149–169. [9]
- Ritter, J.R.R., Fuchs, K., Kaspar, T., Lange, F.E.I., Nyambok, I.O., and Stangl, R.L., 1995, Seismic images illustrate the deep roots of the Chyulu Hills volcanic area, Kenya: *Transactions, American Geophysical Union*, v. 76, no. 28, p. 273, 278. [9]
- Ritter, J.R.R., Meyer, R., Keyser, M., Olejniczak, R., and Barth, A., eds., 2000, *History of seismology in Goettingen*: Unpubl. Msgr., Geophysical Institute, University of Karlsruhe [3]
- Ritzmann, O., Jokat, W., Czuba, W., Guterch, A., Mjelde, R., and Nishimura, Y., 2004, A deep transect from Hovgård Ridge to northwestern Svalbard across the continental-ocean transition: a sheared margin study: *Geophysical Journal International*, v. 157, p. 683–702, doi:10.1111/j.1365-246X.2004.02204.x. [9]
- Robertsson, J.O.A., Blanch, J.O., and Symes, D.D., 1994, Viscoelastic finite-difference modeling: *Geophysics*, v. 59, p. 1444–1456, doi:10.1190/1.1443701. [10]
- Röwer, P., Prodehl, C., and Giese, P., 1977, The seismic refraction profile Lac Nègre–Genova–La Spezia, in Morelli, C., et al., eds., *Crustal and upper mantle structure of the northern Appennines, the Ligurian Sea, and Corsica*, derived from seismic and gravimetric data: *Bollettino di Geofisica Teorica e Applicata*, v. 75–76, p. 249–252. [2] [6]
- Rohr, K.M.M., Milkereit, B., and Yorath, C.J., 1988, Asymmetric deep crustal structure across the Juan de Fuca Ridge: *Geology*, v. 16, p. 533–537, doi:10.1130/0091-7613(1988)016<0533:ADCSAT>2.3.CO;2. [2] [8]
- Roller, J.C., 1964, Crustal structure in the vicinity of Las Vegas, Nevada, from seismic and gravity observations, in *Geological Survey Research 1964: U.S. Geological Survey Professional Paper 475-D*, p. D108–D111. [6]
- Roller, J.C., 1965, Crustal structure in the eastern Colorado Plateau province from seismic-refraction measurements: *Bulletin of the Seismological Society of America*, v. 55, p. 107–119. [6] [8]
- Roller, J.C., and Healy, J.H., 1963, Crustal structure between Lake Mead, Nevada, and Santa Monica Bay, California from seismic-refraction measurements: *Journal of Geophysical Research*, v. 68, p. 5837–5849. [6]
- Roller, J.C., and Jackson, W.H., 1966, Seismic-wave propagation in the upper mantle: Lake Superior, Wisconsin, to Denver, Colorado, in Steinhart, J.S., and Smith, T.J., eds., *The earth beneath the continents*: Washington, D.C., American Geophysical Union, *Geophysical Monograph* 10, p. 270–275. [6]
- Roller, J.C., Borcherdt, R.D., and Borcherdt, C., 1967, Unpubl. interpretation (see Prodehl et al., 1984). [6]
- Romanowicz, B., and Dziewonski, A., eds., 2007, *Seismology and structure of the earth*: Amsterdam, Elsevier, *Treatise on Geophysics*, vol. 1, 858 p. [2]
- Rondenay, S., Bostock, M.G., Hearn, T.M., White, D.J., and Ellis, R.M., 2000, Lithospheric assembly and modification of the SE Canadian Shield: Abitibi-Grenville teleseismic experiment: *Journal of Geophysical Research*, v. 105, p. 13,735–13,754, doi:10.1029/2000JB900022. [9]
- Rosaire, E.E., and Lester, O.C., Jr., 1932, Seismological discovery and partial detail of Vermillion Bay salt dome, Louisiana: *American Association of Petroleum Geologists Bulletin*, v. 16, p. 1221–1229. [2] [3]
- Rosendahl, B.R., and Groschel-Becker, H., 2000, Architecture of the continental margin in the Gulf of Guinea as revealed by reprocessed deep-imaging seismic data, in Mohriak, W., and Talwani, M., eds., *Atlantic Riffs and Continental Margins*: Washington, D.C., American Geophysical Union, *Geophysical Monograph* 115, p. 85–103. [8]
- Rosendahl, B.R., Raitt, R.W., Dorman, L.M., Bibee, L.D., Hussong, D.M., and Sutton, G.H., 1976, Evolution of oceanic crust, 1, a physical model of the East Pacific Rise rest derived from seismic refraction data: *Journal of Geophysical Research*, v. 81, p. 5294–5304, doi:10.1029/JB081i029p05294. [7]
- Rosendahl, B.R., Rogers, J.J.W., and Rach, N.M., eds., 1989, *African rifting*: *Journal of African Earth Science*, v. 8 (special issue), p. 135–629. [9]
- Rosendahl, B.R., Groschel-Becker, H., Meyers, J., and Kaczmarick, K., 1991, Deep seismic reflection studies of a passive margin, southeastern Gulf of Guinea: *Geology*, v. 19, p. 291–295, doi:10.1130/0091-7613(1991)019<0291:DSRSGA>2.3.CO;2. [2] [8]
- Roslov, Yu.V., Sakoulina, T.S., and Pavlenkova, N.I., 2009, Deep seismic investigations in the Barents and Kara Seas: *Tectonophysics*, v. 472, p. 301–308, doi:10.1016/j.tecto.2008.05.025. [2] [9]
- Ross, A.R., Brown, L.D., Pananont, P., Nelson, K.D., Klemperer, S., Haines, S., Wenjin, Z., and Jingru, G., 2004, Deep reflection surveying in central Tibet: lower-crustal layering and crustal flow: *Geophysical Journal International*, v. 156, p. 15–128, doi:10.1111/j.1365-246X.2004.02119.x. [9]
- Ross, G.M., ed., 1999, The LITHOPROBE Alberta Basement Transect: *Bulletin of Canadian Petroleum Geology*, v. 47, p. 331–594. [9]
- Ross, G.M., ed., 2000, The Lithoprobe Alberta Basement Transect: *Canadian Journal of Earth Science*, v. 37, p. 1447–1650, doi:10.1139/cjes-37-11-1447. [2] [9]
- Ross, G.M., ed., 2002, The Lithoprobe Alberta Basement Transect: *Canadian Journal of Earth Science*, v. 39, p. 287–437, doi:10.1139/e02-011. [2] [9]
- Ross, G.M., Eaton, D.W., Boerner, D.E., and Clowes, R.M., 1997, Geologists probe buried Craton in western Canada: *Eos (Transactions, American Geophysical Union)*, v. 78, p. 493–494, 497, doi:10.1029/97EO00302. [9]
- Rothé, J.P., and Peterschmitt, E., 1950, Etude séismique des explosions d’Haslach: *Ann. Institute Physique du Globe, University of Strasbourg, Nouvelle Ser. 5*, part 3: *Géophysique*. [4]
- Rothé, J.P., and Sauer, K., eds., 1967, The Rhinegraben progress report 1967, *Abh. Geol. Landesamt Baden-Württemberg* 6: 146 p. [7]
- Rothé, J.P., Lacoste, J., Bois, C., Dammann, Y., and Hée, A., 1924, Etude de la propagation de l’ébranlement des explosions de la Courtine, Comparaison avec l’explosion d’Oppau: *Bureau Centre Séismologique Internationale Pub., série A, travaux sci.*, fasc. 1, p. 82–98. [3]
- Rothé, J.P., Peterschmitt, E., and Stahl, P., 1948, Les ondes séismiques des explosions d’Haslach: *Comptes rendus de l’Académie de sciences*, v. 227, p. 354–356. [4]
- Rotstein, Y., Yuval, Z., and Trachman, P., 1987, Deep seismic reflection studies in Israel—an update: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 389–394. [2] [8]
- Roure, F., Bergerat, F., Damotte, B., Mugnier, J.L., and Polino, R., eds., 1996, *The ECORS-CROP Alpine seismic traverse: Bulletin de la Société Géologique de France*, v. 170, p. 1–113. [8]
- RRISP Working Group, 1980, Reykjanes Ridge Iceland seismic experiment (RRISP), in Jacoby, W., Björnsson, A., and Möller, D., eds., *Iceland: Evolution, active tectonic, and structure*: *Journal of Geophysics*, v. 47, p. 228–238. [2] [7]
- Ruegg, J.C., 1975, Main results about the crustal and upper mantle structure of the Djibouti region (T.F.A.I.), in Pilger, A., and Rösler, A., eds., *Afar Depression of Ethiopia*: Stuttgart, Schweizerbart, p. 120–134. [2] [7]
- Ruffman, A., and van Hinte, J.E., 1973, Orphan Knoll, a ‘chip’ off the North American ‘Plate’, in Hood, P.J., ed., *Earth Science Symposium on Offshore Eastern Canada: Geological Survey of Canada Paper* 72-23, p. 407–429. [7]
- Rumpel, H.-M., 2003, Crustal structure and shear zones in the Southern Rocky Mountains from refraction/wide-angle reflection data [Ph.D. thesis]: University of Karlsruhe, 150 p. [9]
- Rumpel, H.-M., Prodehl, C., Snelson, C. M., and Keller, G. R., 2005, Results of the CD-ROM project seismic refraction/wide-angle reflection experiment: the upper and middle crust, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union *Geophysical Monograph* 154, p. 257–269. [9]

- Rumpfhuber, E., Keller, G.R., Sandvol, E., Velasco, A.A., and Wison, D.C., 2009, Rocky Mountain evolution: tying continental dynamics of the Rocky Mountains and Deep Probe seismic experiments with receiver functions: *Journal of Geophysical Research*, v. 114, B08301, doi:10.1029/2008JB005726. [9]
- Rumpfhuber, E.M., and Keller, G.R., 2009, An integrated analysis of controlled- and passive- source seismic data across an Archean-Proterozoic suture zone in the Rocky Mountains, USA: *Journal of Geophysical Research*, v. 114, B08305, doi:10.1029/2008JB005886. [9]
- Ruppert, S., Fliedner, M.M., and Zandt, G., 1998, Thin crust and active upper mantle beneath the southern Sierra Nevada in the western United States, in Klempner, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, I: general results and new methods: *Tectonophysics*, v. 286, p. 237–252. [9]
- Ryaboi, V.Z., 1966, Kinematic and dynamic characteristics of deep waves associated with boundaries in the crust and upper mantle (from a DSS study on the profile Kopet Dagl–Aral Sea): *Izv. Erath Physics* 3, p. 4–82. (DSS in 1962–1963). [7]
- Ryall, A., and Stuart, D.J., 1963, Traveltimes and amplitudes from nuclear explosions: Nevada Test Site to Ordway, Colorado: *Journal of Geophysical Research*, v. 68, p. 5821–5835. [6]
- Ryberg, T., and Fuis, G.S., 1998, The San Gabriel Mountains bright reflective zone: possible evidence of young mid-crustal thrust faulting in southern California, in Klempner, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, I: general results and new methods: *Tectonophysics*, v. 286, p. 31–46. [9]
- Ryberg, T., Wenzel, F., Egorkin, A.V., and Solodilov, L., 1998, Properties of the mantle transition zone in northern Eurasia: *Journal of Geophysical Research*, v. 103, p. 811–822, doi:10.1029/97JB02837. [2] [8]
- Ryberg, T., Fuis, G.S., Bauer, K., Hole, J.A., Bleibinhaus, F., and Rymer, M., 2005, Upper crustal reflectivity of the central California Coast Range near the San Andreas Observatory at Depth (SAFOD) [poster]: Eos (Transactions, American Geophysical Union) December 2005. [10]
- Rykunov, L.N., and Sedov, V.V., 1967, An ocean-bottom seismograph: *Isvestija: Physics of Solid Earth*, v. 8, p. 537–541. [7]
- Rynn, J.M., and Reid, I.D., 1983, Crustal structure of the western Arafura Sea from ocean bottom seismograph data: *Journal of the Geological Society of Australia*, v. 30, p. 59–74. [2] [7]
- Sachpazi, M., Hirn, A., Clement, Ch., Laigle, M., and Roussos, N., 2003, Evolution to fastest opening of the Gulf of Corinth continental rift from deep seismic profiles: *Earth and Planetary Science Letters*, v. 216, p. 243–257, doi:10.1016/S0012-821X(03)00503-X. [2] [9]
- Sadowiak, P., Wever, T., and Meissner, R., 1991, Deep seismic reflectivity patterns in specific tectonic units of western and central Europe: *Geophysical Journal International*, v. 105, p. 45–54, doi:10.1111/j.1365-246X.1991.tb03443.x. [2] [8]
- Sain, K., Bruguier, N., Murty, A.S.N., and Reddy, P.R., 2000, Shallow velocity structure along the Hirapur-Mandla profile using traveltime inversion of wide-angle seismic data, and its tectonic implications: *Geophysical Journal International*, v. 142, p. 505–515, doi:10.1046/j.1365-246x.2000.00176.x. [8]
- Sakoulina, T.S., Telegin, A.N., Tikhonova, I.M., Verba, M.L., Matveev, Y.I., Vinnick, A.A., Kopylova, A.V., and Dvornikov, L.G., 2000, The results of deep seismic investigations on geotraverse in the Barents Sea from Kola peninsula to Franz-Joseph Land: *Tectonophysics*, v. 329, p. 319–331, doi:10.1016/S0040-1951(00)00201-8. [2] [9]
- Salisbury, M.H. and Christensen, N.I., 1978, The seismic velocity structure of a traverse through the Bay of Islands ophiolite complex, Newfoundland, an exposure of ancient oceanic crust and upper mantle: *Journal of Geophysical Research*, v. 83, p. 805–817, doi:10.1029/JB083iB02p00805. [7] [8]
- Sallares, V., Danobeitia, J.J., Flueh, E.R., and Leandro, G., 1999, Wide angle seismic velocity structure across the Middle American Trench in northern Costa Rica: *Journal of Geodynamics*, v. 27, p. 327–344, doi:10.1016/S0264-3707(98)00007-6. [2] [9]
- Sallares, V., Charvis, P., Flueh, E.R., and Bialas, J., 2003, Seismic structure of Cocos and Malpelo ridges and implications for hotspot-ridge interaction: *Journal of Geophysical Research*, v. 108, 2564, doi:10.1029/2003JB002431. [2] [9] [10]
- Sallares, V., Charvis, P., Flueh, E.R., Bialas, J., and the SALIERI Scientific Party, 2005, Seismic structure of the Carnegie ridge and the nature of the Galápagos hotspot: *Geophysical Journal International*, v. 161, p. 763–788, doi:10.1111/j.1365-246X.2005.02592.x. [2] [9] [10]
- Sandmeier, K.-J., and Wenzel, F., 1986, Synthetic seismograms for a complex model: *Geophysics Research Letters*, v. 13, p. 22–25, doi:10.1029/GL013i001p00022. [8] [9]
- Sandrini, A., and Thybo, H., 2008, Deep seismic investigations of crustal extensional structures in the Danish Basin along the ESTRID-2 profile: *Geophysical Journal International*, v. 173, p. 623–641, doi:10.1111/j.1365-246X.2008.03759.x. [10]
- Sapin, M., and Hirn, A., 1974, Results of explosion seismology in the southern Rhône valley: *Annales de Géophysique*, v. 30, p. 181–202. [2] [7]
- Sapin, M., and Prodehl, C., 1973, Long-profiles in western Europe—I. Crustal structure between the Bretagne and the Central Massif of France: *Annales de Géophysique*, v. 29, p. 127–145. [2] [7]
- Sapin, M., Wang, X.-J., Hirn, A., and Xu, Z.X., 1985, A deep seismic sounding in the crust of the Lhasa block: *Annales de Géophysique*, v. 3, p. 637–646. [8] [9]
- Sarkar, D., Chandrakala, K., Padmavathi Devi, P., Sridhar, A.R., Sain, K., and Reddy, P.R., 2001, Crustal velocity structure of western Dharwar Craton, South India: *Journal of Geodynamics*, v. 31, p. 227–241, doi:10.1016/S0264-3707(00)00021-1. [7]
- Sarnthein, M., Seibold, E., Grobe, H., and Schumacher, S., 2008, Data Compilation of the Research Vessel METEOR (1964). WDC-MARE Reports 0006 (2008), ISSN 1862-4022. Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany [2] [6] [7] [8]
- Sasatani, T., Yoshii, T., Ikami, A., Tanada, T., Nishiki, T., and Kato, S., 1990, Upper crustal structure under the central part of Japan: Miyota-Shikishima profile: *Bulletin of the Earthquake Research Institute, University of Tokyo*, v. 65, p. 33–48. [2] [8]
- Satarugsa, P., and Johnson, R.A., 1998, Crustal velocity structure beneath the flank of the Ruby Mountains metamorphic core complex: results from normal-incidence to wide-angle seismic data: *Tectonophysics*, v. 295, p. 369–395, doi:10.1016/S0040-1951(98)00015-8. [9]
- Satarugsa, P., and Johnson, R.A., 2000, Constraints on crustal composition beneath a metamorphic core complex: results from 3-component wide-angle seismic data along the eastern flank of the Ruby Mountains, Nevada: *Tectonophysics*, v. 329, p. 223–250, doi:10.1016/S0040-1951(00)00197-9. [9]
- Sato, H., Hirata, H., Ito, T., Tsumura, N., and Ikawa, T., 1998, Seismic reflection profiling across the seismogenic fault of the 1995 Kobe earthquake, southwestern Japan, in Klempner, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, I: general results and new methods: *Tectonophysics*, v. 286, p. 19–30. [2] [9]
- Sato, H., Hirata, N., Iwasaki, T., Matsubara, M., and Ikawa, T., 2002, Deep seismic profiling across Ou backbone range Northern Honshu Island, Japan: *Tectonophysics*, v. 355, p. 41–52, doi:10.1016/S0040-1951(02)00133-6. [2] [9]
- Sato, H., Iwasaki, T., Kawasaki, S., Ikeda, Y., Matsuta, N., Takeda, T., Hirata, N., and Kawanaka, T., 2004, Formation and shortening deformation of a back-arc rift basin revealed by deep seismic profiling, central Japan: *Tectonophysics*, v. 388, p. 47–58, doi:10.1016/j.tecto.2004.07.004. [2] [10]
- Sato, H., Hirata, N., Koketsu, K., Okaya, D., Abe, S., Kobayashi, R., Matsubara, M., Iwasaki, T., Ito, T., Ikawa, T., Kawanaka, T., and Harder, S., 2005, Earthquake Source Fault beneath Tokyo: *Science*, v. 309, p. 462–464, doi:10.1126/science.1110489. [2] [10]
- Sato, H., Ito, K., Abe, S., Kato, N., Iwasaki, T., Hirata, N., Ikawa, T., and Kawanaka, T., 2009, Deep seismic reflection profiling across active reverse faults in the Kinki Triangle central Japan: *Tectonophysics*, v. 472, p. 86–94, doi:10.1016/j.tecto.2008.06.014. [2] [10]
- Sato, T., Sato, T., Shinohara, M., Hino, R., Nishino, M., and Kanazawa, T., 2006, P-wave velocity structure of the margin of the southeastern Tsushima Basin in the Japan Sea using ocean bottom seismometers and airguns: *Tectonophysics*, v. 412, p. 159–171, doi:10.1016/j.tecto.2005.09.001. [2] [9] [10]
- Scandone, P., Mazzotti, A., Fradelizio, G.I., Patacca, E., Stucchi, E., Tozzi, M., and Zanzi, L., 2003, Line CROP 04: southern Apennines, in Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., CROP Atlas: seismic reflection profiles of the Italian crust: *Memorie Descrittive della Carta Geologica d'Italia*, Roma, v. 62, p. 155–166 [9]
- Scarascia, S., and Cassinis, R., 1997, Crustal structures in the central-eastern Alpine sector: a revision of the available DSS data: *Tectonophysics*, v. 271, p. 157–188, doi:10.1016/S0040-1951(96)00206-5. [8]

- Scarascia, S., Lozej, A., and Cassinis, R., 1994, Crustal structures of the Ligurian, Tyrrhenian and Inian seas and adjacent onshore areas interpreted from wide-angle seismic profiles: *Bollettino di Geofisica Teorica e Applicata*, v. 36, p. 5–19. [7]
- Scheidegger, A.E., and Willmore, P.L., 1957, The use of a least-squares method for the interpretation of data from seismic surveys: *Geophysics*, v. 22, p. 9–22, doi:10.1190/1.1438348. [6]
- Schenk, V., 1990, The exposed crustal cross section of southern Calabria, Italy: structure and evolution of a segment of Hercynian crust, in Salisbury, M.H., and Fountain, D.M., eds., *Exposed cross section of the continental crust*: Dordrecht, Kluwer, p. 21–42. [9]
- Scherwath, M., Stern, T., Davey, F., Okaya, D., Holbrook, W.S., Davies, R., and Kleffmann, S., 2003, Lithospheric structure across oblique continental collision in New Zealand from wide-angle P wave modeling: *Journal of Geophysical Research*, v. 108 (B12), 2566, doi: 10.1029/2002JB002286. [9]
- Scherwath, M., Flueh, E., Grevemeyer, I., Tilmann, F., Contreras-Reyes, E., and Weinrebe, W., 2006, Investigating subduction zone processes in Chile: *Eos (Transactions, American Geophysical Union)*, v. 87, no. 27, p. 265, 270. [10]
- Scheuber, E., and Giese, P., 1999, Architecture of the Central Andes—a compilation of geoscientific data along a transect at 21°S, in Reutter, K.-J., ed., *Central Andean deformation*: *Journal of South American Earth Science*, v. 12, p. 103–107, doi:10.1029/2002JB002286. [9]
- Schmidt, A., 1888, Ein Beitrag zur Dynamik der Erdbeben: *Jahreshefte des Vereins für Vaterländische Naturkunde in Württemberg*, Stuttgart, v. 44, p. 248–270. [3]
- Schmidt-Aursch, M.C., and Jokat, W., 2005, The crustal structure of central East Greenland—I: from the Caledonian orogen to the Tertiary igneous province: *Geophysical Journal International*, v. 160, p. 736–752, doi:10.1111/j.1365-246X.2005.02514.x. [2] [9] [10]
- Schmidt-Aursch, M.C., Jokat, W., and Miller, H., 2006, Deutscher Geräte-Pool für amphibische Seismologie—DEPAS-Mariner Teil: German Geophysical Society Annual Meeting 6–9 March 2006, A18 SO, Abstracts, p. 87. [2] [10]
- Schmincke, H.-U., and Rihm, R., eds., 1994, *Ozeanvulkan 1993*, Meteor-Berichte M24, no. 94-2. Leitstelle METEOR, Institute Meereskunde, University of Hamburg, 88 p. (Seismic refraction, p. 14, 56–62). [9]
- Schmitz, M., 1993, *Kollisionsstrukturen in den Zentralen Anden*: Berliner Geowissenschaftliche Abhandlungen, B20, 127 p. [8]
- Schmitz, M., Lessel, K., Giese, P., Wigger, P., Araneda, M., Bribach, J., Graeber, F., Grunewald, S., Haberland, C., Lüth, S., Röwer, P., Ryberg, T., and Schulze, A., 1999, The crustal structure beneath the Central Andean forearc and magmatic arc as derived from seismic studies—the PISCO 94 experiment in northern Chile: *Journal of South American Earth Science*, v. 12, p. 237–260, doi:10.1016/S0895-9811(99)00017-6. [2] [9]
- Schmitz, M., Chalbaud, D., Castillo, J., and Izarra, C., 2002, The crustal structure of the Guayana Shield, Venezuela, from seismic refraction and gravity data: *Tectonophysics*, v. 345, p. 103–118, doi:10.1016/S0040-1951(01)00208-6. [2] [9] [10]
- Schmitz, M., Martins, A., Izarra, C., Jacome, M.I., Sanchez, J., and Rocabado, V., 2005, The major features of the crustal structure in northeastern Venezuela from deep wide-angle seismic observations and gravity modeling: *Tectonophysics*, v. 399, p. 109–124, doi:10.1016/j.tecto.2004.12.018. [2] [9] [10]
- Schmitz, M., Bezada, M., Avila, J., Vieira, E., Yanez, M., Levander, A., Zelt, C.A., Magnani, M.B., Jacome, M.I., and the BOLIVAR Active Seismic Working Group, 2008, Crustal thickness variations in Venezuela from deep seismic observations: *Tectonophysics*, v. 459, p. 14–26, doi:10.1016/j.tecto.2007.11.072. [10]
- Schmoll, J., Bittner, R., Dürbaum, H.-J., Heinrichs, T., Meissner, R., Reichert, C., Rühl, T., and Wiederhold, H., 1989, Oberpfalz deep seismic reflection survey and velocity studies, in Emmermann, R., and Wohlenberg, J., eds., *The German continental deep drilling program (KTB)—site-selection studies in the Oberpfalz and Schwarzwald*: Berlin-Heidelberg, Springer, p. 99–149. [8]
- Schneider, W.A., Ranzinger, K.A., Balch, A.H., and Kruse, C., 1992, A dynamic programming approach to first arrival traveltimes computation in media with arbitrarily distributed velocities: *Geophysics*, v. 57, p. 39–50, doi:10.1190/1.1443187. [9]
- Schnuerle, P., Liu, C.-S., Lallemand, S.E., and Reed, D.L., 1998, Structural insight into the south Ryukyu margin: effects of the subducting Gagua Ridge, in Klemperer, S.L., and Mooney, W.D., eds., *Deep seismic probing of the continents, II: a global survey*: *Tectonophysics*, v. 288, p. 237–250. [2] [9]
- Schulte-Pelkum, V., Gaspar, M., Sheehan, A., Pandey, M.R., Sapkota, S., Bilham, R., and Wu, F., 2005, Imaging the Indian subcontinent beneath the Himalaya: *Nature*, v. 435, p. 1222–1225, doi:10.1038/nature03678. [9]
- Schultz, A.P., and Crosson, R.S., 1996, Seismic velocity structure across the central Washington Cascade Range from refraction interpretation with earthquake sources: *Journal of Geophysical Research*, v. 101, p. 27,899–27,915, doi:10.1029/96JB02289. [9]
- Schulz, G., 1957, Reflexionen aus dem kristallinen Untergrund des Pfälzer Berglandes: *Zeitschrift für Geophysik*, v. 23, p. 225–235. [5]
- Schulze, A., and Weber, M., 2006, Deutscher Pool für amphibische Seismologie—DEPAS-Landteil: German Geophysical Society Annual Meeting 6–9 March 2006, A17 SO, Abstracts, p. 86. [2] [10]
- Schulze, G.A., 1947, Seismische Ergebnisse der Helgoland-Sprengung: *Die Naturwissenschaften*, v. 34, p. 288, doi:10.1007/BF00589869. [2] [4]
- Schulze, G.A., 1974, Anfänge der Krustenseismik, in Birett, H., Helbig, K., Kertz, W., and Schmucker, U., eds., *Zur Geschichte der Geophysik*: Berlin-Heidelberg-New York, Springer, p. 89–98. [2] [3] [4] [5]
- Schulze, G.A., and Förtsch, O., 1950, Die seismischen Beobachtungen bei der Sprengung auf Helgoland am 18.4.47 zur Erforschung des tieferen Untergrundes: *Geologisches Jahrbuch*, v. 64, p. 204–242. [4]
- Schumann, G., and Oesberg, R., 1966, Beiträge zur Erkundung des tieferen Untergrundes des Thüringer Beckens durch Auswertung tiefer Reflexionen: *Geophysik und Geologie—Beiträge zur Synthese zweier Wissenschaften*, v. 9, Leipzig. [6]
- Schweitzer, J., and Lee, W.H.K., 2003, Old seismic bulletins to 1920: a collective heritage from early seismologists, in Lee, W., Kanamori, H., Jennings, P.C., and Kisslinger, C., eds., *International Handbook of Earthquake and Engineering Seismology*, Part B: Amsterdam, Academic Press, p. 1718–1723. [3]
- Scott, C., Shillington, D., Minshull, T., Edwards, R., and White, N., 2006, Structure of the eastern Black Sea basin inferred from wide-angle seismic data: *Europ. Geophys. Union, Ann. Mtg 2006, Geophys. Res. Abstracts*, 8: 07319. [2] [10]
- Scrocca, D., Doglioni, C., Innocenti, F., Manetti, P., Mazzotti, A., Bertelli, L., Burbi, L., and D'Offizi, S., eds., 2003, *CROP Atlas: seismic reflection profiles of the Italian crust: Memorie Descrittive della Carta Geologica d'Italia*, Roma, v. 62, 194 p. [2] [8] [9]
- Scrutton, R.A., 1972, The crustal structure of Rockall Plateau Microcontinent: *Geophysical Journal of the Royal Astronomical Society*, v. 27, p. 259–275. [2] [6]
- Seber, D., Sandvol, E., Sandvol, C., Brindisi, C., and Barazangi, M., 2001, Crustal model for the Middle East and North Africa region: implications for the isostatic compensation mechanism: *Geophysical Journal International*, v. 147, p. 630–638, doi:10.1046/j.0956-540x.2001.01572.x. [10]
- Sellevoll, M.A., 1973, Mohorovičić discontinuity beneath Fennoscandia and adjacent parts of the Norwegian Sea and the North Sea: *Tectonophysics*, v. 20, p. 359–366, doi:10.1016/0040-1951(73)90123-6. [2] [6]
- Sellevoll, M.A., ed., 1982, *Seismic crustal studies on Spitsbergen 1978*: University of Bergen, Seismological Observatory, Bergen, 62 p. [2] [7]
- Sellevoll, M.A., and Warrick, R.E., 1971, A refraction study of crustal structure in southern Norway: *Bulletin of the Seismological Society of America*, v. 61, p. 457–471. [6]
- Sellevoll, M.A., Duda, S.J., Gutser, A., Pajchel, J., Perchuc, E., and Thyssen, F., 1991, Crustal structure in the Svalbard region from seismic measurements: *Tectonophysics*, v. 189, p. 55–71, doi:10.1016/0040-1951(91)90487-D. [7] [8]
- Shackford, P.R.J., and Sutton, D.J., 1979, Crustal structure in South Australia using quarry blasts, in Denham, D., ed., *Crust and upper mantle of Southeast Australia*: Bureau of Mineral Resources, Australia, report 1979/2, abstr. [7]
- Shannon, P.M., Jacob, A.W.B., Makris, J., O'Reilly, B.M., Hauser, F., and Vogt, U., 1994, Basin evolution in the Rockall region, North Atlantic: First Break, v. 12, p. 515–522. [2] [8] [10]
- Shannon, P.M., Jacob, A.W.B., O'Reilly, B.M., Hauser, F., Readman, P.W., and Makris, J., 1999, Structural setting, geological development and basin modelling in the Rockall Trough, in Fleet, A.J., and Boldy, S.A.R., eds., *Petroleum Geology of Northwest Europe*, Proceedings, 5th Conference: Geological Society London, *Petroleum Geology*, v. 86, p. 421–431. [8] [10]

- Sharpless, S.W., and Walter, A.W., 1988, Data report for the 1986 San Luis Obispo, California, seismic-refraction survey: Menlo Park, California, U.S. Geological Survey Open-File Report 88-35, 48 p. [2] [8]
- Shaw, P.R., and Orcutt, J.A., 1985, Waveform inversion of seismic refraction data and application to young Pacific crust: *Geophysical Journal of the Royal Astronomical Society*, v. 82, p. 375–414. [8]
- Shearer, P., and Orcutt, J.A., 1985, Anisotropy in the oceanic lithosphere—theory and observations from the Ngendei seismic refraction experiment in the southwest Pacific: *Geophysical Journal of the Royal Astronomical Society*, v. 80, p. 493–526. [2] [8]
- Sheehan, A., Schulte-Pelkum, V., Boyd, O., and Wilson, C., 2005, Passive source seismology of the Rocky Mountain region, in Karlstrom, K.E., and Keller, G.R., eds., *The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics*: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 309–315. [9]
- Sheridan, R.E., Musser, D.L., Glover, M.I., Talwani, M., Ewing, J., Holbrook, S., Purdy, G.M., Hawman, R., and Smithson, S., 1991, EDGE deep seismic reflection study of U.S. mid-Atlantic continental margin: *Eos (Transactions, American Geophysical Union)*, v. 72, p. 273. [8]
- Shimamura, H., Asada, T., Suyehiro, K., Yamada, T., and Inatani, H., 1983, Longshot experiments to study velocity anisotropy in the oceanic lithosphere of the northwestern Pacific: *Physics of the Earth and Planetary Interiors*, v. 31, p. 348–362, doi:10.1016/0031-9201(83)90094-8. [2] [7]
- Shinohara, M., Suyehiro, K., Matsuda, S., and Ozawa, K., 1993, Digital recording ocean bottom seismometer using portable digital audio tape recorder: *Journal of the Japanese Society Marine Surveys Technol.*, v. 5, p. 21–31 (in Japanese with English abstract). [9]
- Shor, G.G., 1955, Deep reflections from southern California blasts: *Transactions, American Geophysical Union*, v. 36, p. 133–138. [6]
- Shor, G.G., 1963, Refraction and reflection techniques and procedure, in Hill, M.N., ed., *The Sea* vol. 3, The earth beneath the Sea: New York-London, Interscience Publ., p. 20–38. [4] [5]
- Shor, G.G., and Pollard, D.D., 1963, Seismic investigations of Seychelles and Saya de Malha banks, northwest Indian Ocean: *Science*, v. 142, p. 48–49, doi:10.1126/science.142.3588.48. [2] [6]
- Shor, G.G., and Raitt, R.W., 1958, Seismic studies in the southern California continental borderland, in *Sección IX, Geofísica Aplicada, Congreso Geológico Internacional XX Sesión, Mexico, D.F.*, p. 243–259. [6]
- Shor, G.G., and Raitt, R.W., 1969, Explosion seismic refraction studies of the crust and upper mantle in the Pacific and Indian Oceans, in Hart, P.J., ed., *The earth's crust and upper mantle*: American Geophysical Union, Geophysical Monograph 13, p. 225–230. [2] [6]
- Shor, G.G., Dehlinger, P., Kirk, H.K., and French, W.S., 1968, Seismic refraction studies off Oregon and northern California: *Journal of Geophysical Research*, v. 73, p. 2175–2194, doi:10.1029/JB073i006p02175. [2] [6] [8]
- Shor, G.G., Menard, H.W., and Raitt, R.W., 1970, Structure of the Pacific basin, in Maxwell, A.E., ed., *The Sea, new concepts of ocean floor evolution*: New York, Wiley-Interscience, 4, II, p. 3–27. [2] [6]
- Shor, G.G., Kirk, H., and Menard, H., 1971, Crustal structure of the Melanesian area: *Journal of Geophysical Research*, v. 76 (11), p. 2562–2586, doi:10.1029/JB076i011p02562 [6]
- Sick, C., Yoon, M.-K., Rauch, K., Buske, S., Lueth, S., Araneda, N., Bataille, K., Chong, G., Giese, P., Krawczyk, C.M., Mechie, J., Meyer, H., Oncken, O., Reichert, C., Schmitz, M., Shapiro, S., Stiller, M., and Wigger, P., 2006, Seismic images of accretive and erosive subduction zones from the Chilean margin, in Oncken, O., Chong, G., Franz, G., Giese, P., Goetze, H.-J., Ramos, V.A., Strecker, M.R., and Wigger, P., eds., *The Andes—active subduction orogeny: Frontiers in Earth Sciences Series*: Berlin-Heidelberg-New York, Springer, p. 147–169. [2] [9]
- Simpson, F.L., Haak, V., Khan, M.A., Sakkas, V., and Meju, M., 1997, The KRISP-94 magnetotelluric survey of early 1995: first results, in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., *Structure and dynamic processes in the lithosphere of the Afro-Arabian rift system*: *Tectonophysics*, v. 278, p. 261–271. [9]
- Singh, S.C., Hague, P.J., and McCaughey, M., 1998a, Study of the crystalline crust from a two-ship normal-incidence and wide-angle experiment, in Klemperer, S.L., and Mooney, W.D., eds., *Deep seismic probing of the continents, I: general results and new methods*: *Tectonophysics*, v. 286, p. 79–91. [2] [9]
- Singh, S.C., Kent, G.M., Collier, J.S., Harding, A.J., and Orcutt, J.A., 1998b, Melt to mush variations in crustal magma properties along the ridge crest at the southern East Pacific Rise: *Nature*, v. 394, p. 874–878, doi:10.1038/29740. [9]
- Singh, S.C., Harding, A.J., Kent, G.M., Sinha, M.C., Combier, V., Bazin, S., Tong, C.H., Pye, J.W., Barton, P.J., Hobbs, R.W., White, R.S., and Orcutt, J.A., 2006a, Seismic reflection images of the Moho underlying melt sills at the East Pacific Rise: *Nature*, v. 442, p. 287–290, doi:10.1038/nature04939. [2] [9]
- Singh, S.C., Crawford, W.C., Carton, H., Seher, T., Combier, V., Cannat, M., Canales, J.P., Düsünür, D., Escartin, J., and Miranda, M., 2006b, Discovery of a magma chamber and faults beneath a Mid-Atlantic Ridge hydrothermal field: *Nature*, v. 442, p. 1029–1032, doi:10.1038/nature05105. [2] [10]
- Sinha, M.C., and Louden, K.E., 1983, The Oceanographer fracture zone, I. crustal structure from seismic refraction studies: *Geophysical Journal of the Royal Astronomical Society*, v. 75, p. 713–736. [9]
- Sinha, M.C., Owen, T.R.E., and Masoon, M., 1981a, An ocean-bottom hydrophone recorder for seismic refraction experiments: *Marine Geophysical Research*, v. 5, p. 173–187. [7]
- Sinha, M.C., Louden, K.E., and Parsons, B., 1981b, The crustal structure of the Madagascan Ridge: *Geophysical Journal of the Royal Astronomical Society*, v. 66, p. 351–377. [7]
- Sinha, M.C., Navin, D.A., MacGregor, L.M., Constable, S., Peirce, C., White, A., Heinson, G., and Inglis, M.A., 1999, Evidence for accumulated melt beneath the slow-spreading Mid-Atlantic Ridge, in Cann, J.R., Elderfield, H., and Laughton, A., eds., *Mid-ocean ridges—dynamics of processes associated with creation of new oceanic crust*: Cambridge, U.K., Cambridge University Press, p. 17–37. [2] [9]
- Sinno, Y.A., Keller, G.R., and Sbar, M.L., 1981, A crustal seismic refraction study in west-central Arizona: *Journal of Geophysical Research*, v. 86, p. 5032–5038, doi:10.1029/JB086iB06p05023. [2] [7]
- Sinno, Y.A., Daggett, P.H., Keller, G.R., Morgan, P., and Harder, S.H., 1986, Crustal structure of the southern Rio Grande rift determined from seismic refraction profiling: *Journal of Geophysical Research*, v. 91, p. 6143–6156, doi:10.1029/JB091iB06p06143 [2] [7] [8]
- Skoko, D., and Mokrović, J., 1982, *Andrija Mohorovičić: Skolska Knjiga*, Zagreb. [3]
- Slack, P.D., Davis, P.M., and the Kenya Rift International Seismic Project (KRISP) Working Group, 1994, Attenuation and velocity of P-waves in the mantle beneath the East African rift, Kenya, in Prodehl, C., Keller, G.R., and Khan, M.A., eds., *Crustal and upper mantle structure of the Kenya rift: Tectonophysics*, v. 236, p. 331–358. [9]
- Slichter, L.B., 1951, Crustal structure in the Wisconsin area: *Office of Naval Research Report N9ONR-86200: Institute of Geophysics, Los Angeles, California, University of California*. [6]
- Smallwood, J.R., Staples, R.K., Richardson, K.R., and White, R.S., 1999, Crust generated above the Iceland mantle plume: from continental rift to oceanic spreading center: *Journal of Geophysical Research*, v. 104, p. 22,885–22,902, doi:10.1029/1999JB900176. [2] [9]
- Smith, E.G.C., Stern, T., O'Brien, B., 1995, A seismic velocity profile across central South Island, New Zealand, from explosion data: *New Zealand Journal of Geology and Geophysics*, v. 38, p. 565–570, doi:10.1080/00288306.1995.9514684. [2] [8]
- Smith, L.K., White, R.S., Kuszniar, N.J., the iSIMM team, 2005, Structure of the Hatton Basin and adjacent continental margin: *Geological Society of London, Petroleum Geology Conference Series*, v. 6, p. 947–956, doi:10.1144/0060947. [10]
- Smith, R.B., and Braile, L.W., 1994, The Yellowstone hotspot: *Journal of Volcanology and Geothermal Research*, v. 61, p. 121–187, doi:10.1016/0377-0273(94)90002-7. [7]
- Smith, R.B., and Christiansen, R.L., 1980, Yellowstone Park as a window on the Earth's interior: *Scientific American*, v. 242, p. 104–117, doi:10.1038/scientificamerican0280-104. [7]
- Smith, R.B., Schilly, M.M., Braile, L.W., Ansorge, J., Lehmann, J.L., Baker, M.R., Prodehl, C., Healy, J.H., Mueller, S., and Greensfelder, R.W., 1982, The 1978 Yellowstone–eastern Snake River Plain seismic profiling experiment: Crustal structure of the Yellowstone region and experiment design: *Journal of Geophysical Research*, v. 87, p. 2583–2596, doi:10.1029/JB087iB04p02583. [2] [7]
- Smith, T.J., Steinhart, J.S., and Aldrich, L.T., 1966, Crustal structure under Lake Superior, in Steinhart, J.S., and Smith, T.J., eds., *The earth beneath the continents*: Washington, D.C., American Geophysical Union, Geophysical Monograph 10, p. 181–197. [6]

- Smithson, S.B., and Johnson, R.A., 1989, Crustal structure of the western United States based on reflection seismology, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 577–612. [2] [8] [9]
- Smithson, S.B., Brewer, J.A., Kaufman, S., Oliver, J.E., and Hurich, C.A., 1979, Structure of the Laramide Wind River uplift, Wyoming, from COCORP deep reflection data and from gravity data: Journal of Geophysical Research, v. 84, p. 5955–5972, doi:10.1029/JB084iB11p05955. [2] [7]
- Smythe, D.K., Smithson, S.B., Gillen, C., Humphreys, C., Kristoffersen, Y., Karaev, N.A., Garipov, V.Z., Pavlenkova, N.I., and the KOLA–92 Working Group, 1994, Project images crust, collects seismic data in world's largest borehole: Eos (Transactions, American Geophysical Union), v. 75, p. 473–476, doi:10.1029/94EO01089. [9]
- Snelson, C.M., 2001, Investigating crustal structure in western Washington and in the Rocky Mountains: implications for seismic hazards and crustal growth [Ph.D. thesis]: University of Texas at El Paso, 234 p. [2] [9]
- Snelson, C.M., Henstock, T.J., Keller, G.R., Miller, K.C., and Levander, A., 1998, Crustal and uppermost mantle structure along the DEEP PROBE seismic profile: Rocky Mountain Geology, v. 33, p. 181–198. [2] [9]
- Snelson, C.M., Keller, G.R., Miller, K.C., Rumpel, H.-M., and Prodehl, C., 2005, Regional crustal structure derived from the CD-ROM 99 seismic refraction/wide-angle reflection profile: the lower crust and upper mantle, in Karlstrom, K.E., and Keller, G.R., eds., The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 271–291. [9]
- Snelson, C.M., Brocher, T.M., Miller, K.C., Pratt, T.L., and Trehu, A.M., 2007, Seismic amplification within the Seattle basin, Washington state: insights from SHIPS seismic tomography experiments: Bulletin of the Seismological Society of America, v. 97, p. 1432–1448, doi:10.1785/0120050204. [9]
- Snyder, D., and Hobbs, R., 1999, The BIRPS Atlas II. A second decade of deep seismic reflection profiling (3 CD-ROM pack): Geological Society of London. [8]
- Snyder, D.B., Spencer, C., and Warner, M. (convenors), 1997, Workshop meeting on controlled source seismology (CCSS), 4–8 June 1996, Cambridge, UK: Journal of Conference Proceedings, v. 1, p. 1–96. [2] [9] [10]
- Snyder, D.B., Hobbs, R.W., and Chicxulub Working Group, 1999, Ringed structural zones with deep roots formed by the Chicxulub impact: Journal of Geophysical Research, v. 104, p. 10,743–10,755, doi:10.1029/1999JB900001. [2] [9]
- Snyder, D.B., Eaton, D.W., Hurich, C.A., eds., 2006, Seismic probing of continents and their margins: Tectonophysics, v. 420, p. 1–520, doi:10.1016/j.tecto.2006.01.008. [2] [10]
- Soller, D.R., Ray, R.D., and Brown, R.D., 1981, A global crustal thickness map: Open-File Report, Phoenix Corporation, McLean, Virginia, 51 p. [2] [7] [10]
- Sollrogub, V.B., 1969, Seismic crustal studies in southeastern Europe, in Hart, P.J., ed., The earth's crust and upper mantle: American Geophysical Union, Geophysical Monograph 13, p. 189–195. [6] [7]
- Sollrogub, V.B., and Chekunov, A.V., 1972, The Ukrainian Soviet Socialist Republic, in Sollrogub, V.B., Prosen, D., and Militzer, H., 1972, Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian 1971). English translation edited by György, S., 1972: Geophysical Transactions, special edition, Müszaki Könyvkiadó, Budapest, chapter 21, p. 44–68. [2] [6]
- Sollrogub, V.B., Prosen, D., and Militzer, H., 1972, Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: Geophysical Transactions, special edition, Müszaki Könyvkiadó, Budapest, 172 p. [2] [6]
- Sollrogub, V.B., Litvinenko, I.V., Chekunov, A.V., Ankudinov, S.A., Ivanov, A.A., Kalyuzhnaya, L.T., Kokorina, L.K., and Tripolsky, A.A., 1973a, New D.S.S.-data on the crustal structure of the Baltic and Ukraine shields: Tectonophysics, v. 20, p. 67–84, doi:10.1016/0040-1951(73)90097-8. [2] [6] [7]
- Sollrogub, V.B., Prosen, D., and Co-Workers, 1973b, Crustal structure of central and southeastern Europe by data of explosion seismology: Tectonophysics, v. 20, p. 1–33, doi:10.1016/0040-1951(73)90093-0. [6]
- Sornes, A., 1968, Pt time-term survey Norway–Scotland 1967: ARPA Supplementary scientific report No 612-1. [2] [6]
- Sorokin, Yu.M., Ya, Zamansky, Yu.Ya., Langinen, A.Ye., Jackson, H.R., and Macnab, R., 1999, Crustal structure of the Makarov Basin, Arctic Ocean determined by seismic refraction: Earth and Planetary Science Letters, v. 168, p. 187–199. [2] [8]
- Sparlin, M.A., Braile, L.W., and Smith, R.B., 1982, Crustal structure of the eastern Snake River Plain determined from ray trace modelling of seismic refraction data: Journal of Geophysical Research, v. 87, p. 2619–2633, doi:10.1029/JB087iB04p02619. [7]
- Spence, G.D., and McLean, N.A., 1998, Crustal seismic velocity and density structure of the Intermontane and Coast belts, southwestern Cordillera: Canadian Journal of Earth Science, v. 35, p. 1362–1379, doi:10.1139/cjes-35-12-1362. [8]
- Spence, G.D., Whittall, K.P., and Clowes, R.M., 1984, Practical synthetic seismograms for laterally varying media calculated by asymptotic ray theory: Bulletin of the Seismological Society of America, v. 74, p. 1209–1223. [2] [7] [8] [10]
- Spencer, C., Green, A., and Luetgert, J.H., 1987, More seismic evidence on the location of Grenville basement beneath the Appalachians of Quebec—Maine: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 183–189. [8]
- Spencer, C., Green, A., Morel-a-l'Huissier, P., Milkereit, B., Luetgert, J.H., Steward, D.B., Unger, J.D., and Phillips, J.D., 1989, Allochthonous units I the northern Appalachians: results from the Quebec—Maine seismic reflection and refraction surveys: Tectonics, v. 8, p. 667–696. [2] [8]
- Spieth, M.A., Hill, D.P., and Geller, R.J., 1981, Crustal structure in the northwestern foothills of the Sierra Nevada from seismic refraction experiments: Bulletin of the Seismological Society of America, v. 71, p. 1075–1087. [7]
- Sponheuer, W., and Gerecke, F., 1949, Die Sprengung in Grosseutersdorf bei Kahla (Thüringen) am 1. February 1947, Veroeff. Zentralinst. Erdbebenforsch. Jena, Heft 51, p. 48–56. [4]
- Spudich, P., and Orcutt, J., 1980, A new look at the seismic velocity structure of the oceanic crust: Reviews of Geophysics and Space Physics, v. 18, p. 627–645, doi:10.1029/RG018i003p00627. [2] [6] [7] [8]
- Sroda, P., Grad, M., and Guterch, A., 1997, Seismic models of the earth's crustal structure between the South Pacific and the Antarctic Peninsula, in Ricci, C.A., ed., The Antarctic Region: Geological evolution and processes: Terra Antarctica Publication, Siena, p. 685–689. [8]
- Sroda, P., Czuba, W., Grad, M., Guterch, A., Gaczynski, E., and POLONAISE Working Group, 2002, Three-dimensional seismic modelling of crustal structure in the TESZ region based on POLONAISE'97 data: Tectonophysics, v. 360, p. 169–185, doi:10.1016/S0040-1951(02)00351-7. [9]
- Stadtlander, R., Mechle, J., and Schulze, A., 1999, Deep structure of the southern Ural mountains as derived from wide-angle seismic data: Geophysical Journal International, v. 137, p. 501–515, doi:10.1046/j.1365-246X.1999.00794.x. [9]
- Stangl, R., 1990, Die Struktur der Lithosphäre in Schweden, abgeleitet aus einer gemeinsamen Interpretation de P- und S-Wellen Registrierungen auf dem FENNOLORA-Profil. [Ph.D. thesis]: University of Karlsruhe, 187 p. [7] [8]
- Stankiewicz, J., Ryberg, T., Schulze, A., Lindeque, A., Weber, M.H., and de Wit, M.J., 2007, Initial results from wide-angle seismic refraction lines in the southern Cape: South African Journal of Geology, v. 110, no. 2–3, p. 407–418, doi:10.2113/gssajg.110.2-3.407. [2] [10]
- Stankiewicz, J., Parsiegla, N., Ryberg, T., Gohl, K., Weckmann, U., Trumbull, R., and Weber, M., 2008, Crustal structure of the southern margin of the African continent: Results from geophysical experiments: Journal of Geophysical Research, v. 113, B10313, doi:10.1029/2008JB005612. [10]
- Staples, R.K., White, R.S., Brandsdottir, B., Menke, W., Maguire, P.K.H., and McBride, J.H., 1997, Faeroe–Iceland Ridge experiment, I, Crustal structure of northeastern Iceland: Journal of Geophysical Research, v. 102, p. 7849–7866, doi:10.1029/96JB03911. [9]
- Starostenko, V., Omelchenko, V., and Tolunkov, A., 2006, Refraction/wide-angle reflection seismic profile “DOBRE-2” project Near-Azov massif and Crimea, shelves of Azov and Black Seas, Ukraine (DSS and CDP), in Grad, M., Booth, D., and Tiira, T., eds., European Seismological Commission (ESC), Subcommission D—Crust and Upper Mantle Structure, Activity Report 2004–2006. [2] [10]
- Stäuble, M., and Pfiffner, O.A., 1991, Processing, interpretation and modeling of seismic reflection data in the Molasse basin of eastern Switzerland: Eclogae Geologicae Helvetiae, v. 84, p. 151–175. [8]

- Steele, J., Thorpe, S., and Turekian, K., eds., 2001, Encyclopedia of Ocean Sciences: Elsevier, Amsterdam, Academic Press. [2] [10]
- Steeples, D.W., and Miller, R.D., 1989, Kansas reflection profiles: Kansas Geological Survey Bulletin, v. 226, p. 129–164. [2] [6]
- Steer, D.N., Knapp, J.H., Brown, L.D., Rybalka, A.V., and Sokolov, V.B., 1995, Crustal structure of the Middle Urals based on reprocessing of Russia seismic reflection data: Geophysical Journal International, v. 123, p. 673–682, doi:10.1111/j.1365-246X.1995.tb06883.x. [9]
- Stein, A., and Schröder, H., 1976, Shotpoint data of quarry blasts 1958–1972, in Giese, P., Prodehl, C., and Stein, A., eds., Explosion seismology in central Europe—data and results: Springer, Berlin-Heidelberg-New York, p. 54–61. [6]
- Stein, C.A., and von Herzen, R.P., 2001, Geophysical heat flow, in Steele, J., Thorpe, S., and Turekian, K., eds., Encyclopedia of Ocean Sciences: Amsterdam, Academic Press, Elsevier, p. 1149–1157. [10]
- Steinhart, J.S., 1961, The continental crust from explosions: a review, in Steinhart, J.S., and Meyer, R.P., eds., Explosion Studies of Continental Structure: Carnegie Institution of Washington, Publication no. 622, p. 7–73. [3]
- Steinhart, J.S., and Meyer, R.P., eds., 1961, Explosion Studies of Continental Structure: Carnegie Institution of Washington, Publication no. 622, 409 p. [2] [5] [6] [10]
- Steinhart, J.S., and Smith, T.J., eds., 1966, The earth beneath the continents: Washington, D.C., American Geophysical Union, Geophysical Monograph 10, 663 p. [2] [6]
- Steinhart, J.S., Meyer, R.P., and Woppard, G.P., 1961a, Arkansas-Missouri, 1958, in Steinhart, J.S., and Meyer, R.P., eds., Explosion Studies of Continental Structure: Carnegie Institution of Washington, Publication no. 622, p. 226–247. [2] [5]
- Steinhart, J.S., Meyer, R.P., and Woppard, G.P., 1961b, Wisconsin–Upper Michigan, 1958–1959, in Steinhart, J.S., and Meyer, R.P., eds., Explosion Studies of Continental Structure: Carnegie Institution of Washington, Publication no. 622, p. 248–304. [2] [5]
- Steinhart, J.S., Smith, T.J., and Meyer, R.P., 1961c, Theoretical background, in Steinhart, J.S., and Meyer, R.P., eds., Explosion Studies of Continental Structure: Carnegie Institution of Washington, Publication no. 622, p. 74–125. [5] [10]
- Steinhart, J.S., Smith, T.J., Sacks, I.S., Summer, R., Suzuki, Z., Rodriguez, A., Lomnitz, C., Tuve, M.A., and Aldrich, L.T., 1963, Seismic studies: Carnegie Institution of Washington, Year Book, v. 62, p. 280–289. [6]
- Steinmetz, L., Hirn, A., and Perrier, G., 1974, Réflexions sismiques à la base de l'asthénosphère: Annales de Géophysique, v. 30, p. 173–180. [2] [7]
- Steinmetz, L., Whitmarsh, R.B., Moreira, V.S., 1977, Upper mantle structure beneath the Mid-Atlantic Ridge north of the Azores based on observations of compressional waves: Geophysical Journal of the Royal Astronomical Society, v. 50, p. 353–380. [2] [7]
- Steinmetz, L., Ferrucci, F., Hirn, A., Morelli, C., and Nicolich, R., 1983, A 550-km-long Moho traverse in the Tyrrhenian Sea from O.B.S. recorded P_n waves: Geophysical Research Letters, v. 10, p. 428–431, doi:10.1029/GL010i006p00428. [2] [7]
- Stephen, R.A., 1981, Seismic anisotropy observed in upper oceanic crust: Geophysical Research Letters, v. 8, p. 865–868, doi:10.1029/GL008i008p00865. [7]
- Stephen, R.A., 1985, Seismic anisotropy in the upper oceanic crust: Journal of Geophysical Research, v. 90, p. 11,383–11,396, doi:10.1029/JB090iB13p11383. [7]
- Stephen, R.A., Louden, K.E., and Matthews, D.H., 1980, The oblique seismic experiment on DSDP Leg 52: Geophysical Journal of the Royal Astronomical Society, v. 60, p. 289–300. [7]
- Stephenson, R.A., Morel-a-l'Huissier, P., Zelt, C.A., Mereu, R.F., Kanasewich, E.R., Hajnal, Z., Northey, D.J., and West, G.F., 1989, Crust and upper mantle structure and the origin of the Peace River arch: Bulletin of Canadian Petroleum Geology, v. 37, p. 224–235. [2] [8]
- Stephenson, R.A., Yegorova, T., Brunet, M.-F., Stovba, S., Wilson, M., Starostenko, V., Saintot, A., and Kusznir, N., 2006, Late Paleozoic intra- and pericratonic basins in the East European Craton and its margins, in Gee, D.G., and Stephenson, R.A., eds., European lithosphere dynamics: Geological Society of London Memoir 32, p. 463–479. [9]
- Steppe, J.A., and Crosson, R.S., 1978, P-velocity models of the southern Diablo Range, California, from inversion of earthquake and explosion arrival times: Bulletin of the Seismological Society of America, v. 68, p. 357–367. [6]
- Stern, T.A., 1985, A back-arc basin formed within continental lithosphere: the Central Volcanic Region of New Zealand: Tectonophysics, v. 112, p. 385–409, doi:10.1016/0040-1951(85)90187-8. [2] [8]
- Stern, T.A., and Davey, F.J., 1987, A seismic investigation of crustal and upper mantle structure within the Central Volcanic Region of New Zealand: New Zealand Journal of Geology and Geophysics, v. 30, p. 217–231. [8] [9]
- Stern, T.A., and McBride, J., 1998, Seismic exploration of continental strike-slip zones, in Klemperer, S.L., and Mooney, W.D., eds., Deep seismic probing of the continents, I: General results and new methods: Tectonophysics, v. 286, p. 63–78. [9]
- Stern, T.A., Davey, F.J., and Smith, E.G.C., 1986, Crustal structure studies in New Zealand, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 121–132. [2] [5] [8]
- Stern, T.A., Smith, E.G.C., Davey, F.J., and Muirhead, K.J., 1987, Crustal and upper mantle structure of the northwestern North Island, New Zealand, from seismic refraction data: Geophysical Journal of the Royal Astronomical Society, v. 91, p. 913–916. [8]
- Stern, T.A., Okaya, D., Kleffman, S., Scherwath, M., Henrys, S., and Davey, F., 2007, Geophysical exploration and Dynamics of the Alpine Fault Zone, In: Okaya, D., Stern T., and Davey F., eds., A continental plate boundary: tectonics at South Island, New Zealand: Washington, D.C., American Geophysical Union, Geophysical Monograph 175, p. 207–233. [9]
- Stewart, D.B., Unger, J.D., Phillips, J.D., Goldsmith, R., Poole, W.H., Spencer, C.P., Green, A.G., Loiselle, M.C., and St-Julien, P., 1986, The Quebec–western Maine seismic reflection profile: setting and first year results, in Barazangi, M., and Brown, L., eds., Reflection seismology: the continental crust: American Geophysical Union, Geodynamics Series, v. 14, p. 189–199. [2] [8]
- Stewart, S.W., 1968a, Preliminary comparison of seismic travel-times and inferred crustal structure adjacent to the San Andreas fault in the Diablo and Gabilan Ranges of central California, in Dickinson, W.R., and Grantz, A., eds., Proceedings of Conference on Geologic Problems of the San Andreas Fault System: Stanford University, School of Earth Science, p. 218–230. [6] [7]
- Stewart, S.W., 1968b, Crustal structure in Missouri by seismic refraction methods: Bulletin of the Seismological Society of America, v. 58, p. 291–323. [6]
- Stewart, S.W., and Pakiser, L.C., 1962, Crustal structure in eastern New Mexico interpreted from the Gnome explosion: Bulletin of the Seismological Society of America, v. 52, p. 1017–1030. [6]
- Stiller, M., 1991, 3-D vertical incidence seismic reflection survey at the KTB location, Oberfalg, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., Continental lithosphere: deep seismic reflections: American Geophysical Union, Geodynamics Series, v. 22, p. 101–113. [8]
- Stoffa, P. L., and Buhl, P., 1979, Two ship multichannel seismic experiments for deep crustal studies: Expanded spread and constant offset profiles: Journal of Geophysical Research, v. 84, p. 7645–7660. [7] [8]
- Stratford, W.R., and Stern, T.A., 2006, Crust and upper mantle structure of a continental backarc: central North Island, New Zealand: Geophysical Journal International, v. 166, p. 469–484, doi:10.1111/j.1365-246X.2006.02967.x. [10]
- Subbotin, S., Sollogub, V.B., Prosen, D., Dragasevic, T., Mituch, E., and Posgay, K., 1968, Crustal structure of southeastern Europe according to the data of deep seismic soundings: Bollettino di Geofisica Teorica e Applicata, v. 10, p. 241–264. [6]
- Sumanovac, F., Oreskovic, J., Grad, M., and ALP 2002 Working Group, 2009, Crustal structure at the contact of the Dinarides and Pannonian basin based on 2-D seismic and gravity interpretation of the Alp07 profile in the ALP 2002 experiment: Geophysical Journal International, v. 179, p. 615–633. [10]
- Summers, T.P., Westbrook, G.K., and Hall, J., 1982, The Western Isles Seismic Experiment: Geophysical Journal of the Royal Astronomical Society, v. 69, p. 279. [2] [7] [8]
- Sun, W., Zhu, Z., Zhang, L., Song, S., Zhang, C., and Zheng, Y., 1988, Exploration of the crust and upper mantle in North China, in Developments in the Research of Deep Structures of China's Continent: Beijing, Geological Publishing House, p. 19–37. [8]
- Sutherland, R., 1999, Cenozoic bending of New Zealand basement terranes and Alpine Fault displacement: a brief review: New Zealand Journal of

- Geology and Geophysics, v. 42, p. 295–301, doi:10.1080/00288306.1999.9514846. [9]
- Sutton, G., Maynard, G., and Hussong, D., 1971, Widespread occurrence of a high-velocity basal layer in the Pacific crust found with repetitive sources and sonobuoys, in Heacock, J.G., ed., The structure and physical properties of the earth's crust: American Geophysical Union Geophysical Monograph 14, p. 193–209. [2] [6]
- Sutton, G.H., Manghnani, M.H., Moberly, R., and McAfee, E.U., eds., 1976, The geophysics of the Pacific Ocean basin and its margin: American Geophysical Union, Geophysical Monograph 19, 480 p. [7]
- Suvorov, V.D., Melnik, E.A., Thybo, H., Perchuc, E., and Parasotka, B.S., 2006, Seismic velocity model of the crust and uppermost mantle around the Mirnyi kimberlite field in Siberia: Tectonophysics, v. 420, p. 49–73, doi:10.1016/j.tecto.2006.01.009. [2] [8]
- Suyehiro, K., and Nishizawa, A., 1994, Crustal structure and seismicity beneath the forearc off northeastern Japan: Journal of Geophysical Research, v. 99, p. 22,331–22,347, doi:10.1029/94JB01337. [2] [8]
- Suyehiro, K., Takahashi, N., Arie, Y., Yokoi, Y., Hino, R., Shinohara, M., Kanazawa, T., Hirata, N., Tokuyama, H., and Taira, A., 1996, Continental crust, crustal underplating and low-Q upper mantle beneath an oceanic island arc: Science, v. 272, p. 390–392, doi:10.1126/science.272.5260.390. [2] [9]
- Swain, C.J., Maguire, P.K.H., and Khan, M.A., 1994, Geophysical experiments and models of the Kenya rift before 1989, in C. Prodehl, G.R. Keller, and M.A. Khan, eds., Crustal and upper mantle structure of the Kenya rift: Tectonophysics, v. 236, p. 23–32. [8]
- Szénás, Gy., ed., 1972, English translation of: Sollogub, V.B., Prosen, D., and Militzer, H., 1971, Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian): Geophysical Transactions, special edition, Müszaki Könyvkiado, Budapest, 172 p. [2] [6]
- Taber, J.J., and Lewis, B.T.R., 1986, Crustal structure of the Washington continental margin from refraction data: Bulletin of the Seismological Society of America, v. 76, p. 1011–1024. [8]
- Taira, T., Moriya, T., Miyamachi, H., Wada, N., Hirano, S., Otsuka, K., Matsubara, W., and Maruyama, Y., 2002, Seismic refraction experiment in the northeastern part of the Hokkaido, Japan: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 77, p. 225–230 (in Japanese). [2] [9]
- Takahashi, N., Kodaira, S., Tsuru, T., Park, J-O., Kaneda, Y., and Kinoshita, H., 2000, Detailed plate boundary structure off northeast Japan: Geophysical Research Letters, v. 27 (13), p. 1977–1980, doi:10.1029/2000GL008501. [9] [10]
- Takahashi, N., Kodaira, S., Tsuru, T., Park, J-O., Kaneda, Y., Suyehiro, K., Kinoshita, H., Abe, S., Nishino, M., and Hino, R., 2004, Seismic structure and seismogenesis off Sanriku region, northeastern Japan: Geophysical Journal International, v. 159, no. 1, p. 129–145, doi:10.1111/j.1365-246X.2004.02350.x. [2] [9] [10]
- Takahashi, N., Kodaira, S., Tatsumi, Y., Kaneda, Y., and Suyehiro, K., 2008, Structure and growth of the Izu-Bonin-Mariana arc crust: 1. Seismic constraint on crust and mantle structure of the Mariana arc-back-arc system: Journal of Geophysical Research, v. 113, B01104, doi:10.1029/2007JB005120. [10]
- Takeda, T., 1997, Reanalysis from seismic refraction data in Nagano basin area, Japan—crustal structure in central Japan [M.S. thesis]: University of Tokyo, 26 p. [10]
- Talwani, M., and Abreu, V., 2000, Inferences regarding initiation of oceanic crust formation from the U.S. coast margin and conjugate South Atlantic margins, in Mohriak, W., and Talwani, M., eds., Atlantic Riffs and Continental Margins: American Geophysical Union, Geophysical Monograph, v. 115, p. 211–233. [9]
- Talwani, M., Sutton, G.H., and Worzel, J.L., 1959, A crustal section across the Puerto Rico Trench: Journal of Geophysical Research, v. 64, p. 1545–1555. [5]
- Talwani, M., Le Pichon, X., and Ewing, M., 1965, Crustal structure of the mid-ocean ridges: Journal of Geophysical Research, v. 70, p. 341–352, doi:10.1029/JZ070i002p00341. [5]
- Talwani, M., Windisch, C.C., and Langseth, M.G., Jr., 1971, Reykjanes Ridge crest: a detailed geophysical study: Journal of Geophysical Research, v. 76, p. 473–491, doi:10.1029/JB076i002p00473. [7]
- Talwani, M., Mutter, J., Houtz, R., and Konig, M., 1979, The crustal structure and evolution of the area underlying the magnetic quiet zone on the margin south of Australia, in Watkins, J.S., Montadert, L., and Dickerson, P., eds., Geological and Geophysical Investigations of Continental Margins: American Association of Petroleum Geologists Memoir 29, p. 151–175. [2] [7]
- Tandon, K., Brown, L., and Hearn, T., 1999, Deep structure of the northern Rio Grande rift beneath the San Luis basin (Colorado) from a seismic reflection survey: implications for rift evolution: Tectonophysics, v. 302, p. 41–56, doi:10.1016/S0040-1951(98)00224-8. [9]
- Tarkov, A.P., and Basula, I.V., 1983, Inhomogeneous structure of the Voronezh shield lithosphere from explosion seismology data: Physics of the Earth and Planetary Interiors, v. 31, p. 281–292. [2] [7]
- Tatel, H.E., and Tuve, M.A., 1955, Seismic exploration of a continental crust, in Poldervaart, A., ed., Crust of the earth (a symposium): Geological Society of America Special Paper 62, p. 35–50. [2] [5]
- Tatel, H.E., and Tuve, M.A., 1956, Seismic crustal measurements in Alaska (abst.): Transactions, American Geophysical Union, v. 37, p. 360. [2] [5]
- Tatel, H.E., and Tuve, M.A., 1958, Carnegie seismic expedition to the Andes, 1957 (abst.): Transactions, American Geophysical Union, v. 39, p. 580. [5] [9]
- Taylor, S.R., 1989, Geophysical framework of the Appalachians and adjacent Grenville Province, in Pakiser, L.C., and Mooney, W.D., eds., Geophysical framework of the continental United States: Geological Society of America Memoir 172, p. 317–348. [8] [9]
- Temmler, T., Franke, D., Heyde, I., and Neben, S., 2006, Marine seismische Untersuchung und refraktionsseismische Modellierung im Pelotas Becken—offshore Uruguay: German Geophysical Society, Annual Meeting, Bremen, 6–9 March 2006, A17 SO, Abstracts p. 170–171. [2] [10]
- ten Brink, U.S., Bannister, S., Beaudoin, B.C., and T.A. Stern, 1993, Geophysical investigations of the tectonic boundary between East and West Antarctica: Science, v. 261, p. 45–50, doi:10.1126/science.261.5117.45. [2] [9]
- ten Brink, U.S., Drury, R.M., Miller, G.K., 1996, Los Angeles region seismic experiment (LARSE), California—off-shore seismic refraction data: Open-File Report 96-27, 9 p. and plates. [9]
- ten Brink, U.S., Al-Zoubi, A.S., Flores, C.H., Rotstein, Y., Qabbani, I., Harder, S.H., and Keller, G.R., 2006, Seismic imaging of deep low-velocity zone beneath the Dead Sea basin and transform fault: implications for strain localization and crustal rigidity: Geophysical Research Letters, v. 33, L24314, doi:10.1029/2006GL027890. [2] [9] [10]
- Teng, J.W., 1979, Geophysical investigations of the earth's crust and upper mantle in China: Acta Geophysica Sinica, v. 22, p. 346–350. [2] [7]
- Teng, J.-W., 1987, Explosion study of the structure and seismic velocity distribution of the crust and upper mantle under the Xizang (Tibet) plateau: Geophysical Journal of the Royal Astronomical Society, v. 89, p. 405–414. [2] [7] [8]
- Teng, J.W., et al., 1974, The crustal structure of the eastern Qaidam basin from deep reflected waves: Acta Geophysica Sinica, v. 17, p. 122–135. [7]
- Teng, J.W., Xiong, S., Yin, Z., Xu, Z., Wang, X., and Lu, D., 1983a, Structures of the crust and upper mantle pattern and velocity distributional characteristics at the northern region of the Himalaya Mountains: Acta Geophysica Sinica, v. 26, p. 525–540. [8]
- Teng, J.W., Sun, K-Z., Xiong, S-B., Yin, Z-X.Y.H., and Chen, L-F., 1983b, Deep seismic reflection waves and structure of the crust from Dangxung to Yadong on the Xizang Plateau (Tibet): Physics of the Earth and Planetary Interiors, v. 31, p. 293–306, doi:10.1016/0031-9201(83)90089-4. [8]
- Tewari, H.C., Dixit, M.M., Rajendra Prasat, B., Rao, N.M., Venkateshwarlu, N., Vijaya Rao, V., Kare, P., Kesava Rao, G., Raju, S., and Kaila, K.L., 1995, Deep crustal reflection studies across the Aravalli-Delhi fold belt: results from the northwestern part, in Sinha-Roy, S., and Gupta, K.R., eds., Continental crust of northwestern and central India: Geological Society of India Memoir 31, p. 383–402. [9]
- Tewari, H.C., Dixit, M.M., Rao, N.M., Venkateshwarlu, N., and Vijaya Rao, V., 1997, Crustal thickening under the Paleo/Mesoproterozoic Delhi fold belt in northwestern India: evidence from deep reflection profiling: Geophysical Journal International, v. 129, p. 657–668, doi:10.1111/j.1365-246X.1997.tb04501.x. [9]
- Teyssiere, R., and Teyssiere, B., 2003, Wawrzyniec Karol de Teyssiere: a pioneer in the study of “cryptotectonics”: Eos (Transactions, American Geophysical Union), v. 83, p. 541, 546. [9]
- The research group for the 2003 Hinagu fault seismic expedition, 2008, Seismic expedition in the Hinagu fault area, Kyushu island, Japan: Bulletin of the Earthquake Research Institute, University of Tokyo, v. 83, p. 103–130. [9]
- Thouvenot, F., Senechal, G., Hirn, A., and Nicolich, R., 1990, The ECORS-CROP wide-angle reflection seisms: constraints on deep interfaces beneath the Alps, in Roure, F., Heitzmann, P., and Polino, R., eds.,

References Cited

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- Deep structure of the Alps: Mémoires de la Société Géologique Suisse, Zürich, 1; Vol. spec. Society Geol. It., Roma, 1, p. 97–106. [8]
- Thouvenot, F., Poupinet, G., Kashubin, S.N., Matte, Ph., Egorkin, A.V., and Solodilov, L.N., 1994, Deep structure of the Urals from wide-angle reflection seismic and teleseismic data: Abstracts from the XIX EGS Meeting, Genoble, 25–29 April 1994, C33. [9]
- Thurber, C., Roecker, S., Lutter, W., and Ellsworth, W., 1996, Imaging the San Andreas fault with explosion and earthquake sources: *Eos (Transactions, American Geophysical Union)*, v. 77, p. 45, 57–58, doi:10.1029/96EO00032. [9]
- Thybo, H., ed., 2002, Deep seismic probing of the continents and their margins: *Tectonophysics*, v. 355, 263 p. [2] [9] [10]
- Thybo, H., Pharaoh, T., and Gutcher, A., 1999, Introduction (Symposium SE19 on Geophysical Investigations of the TESZ, annual meeting of the EGS in Nice 1998): *Tectonophysics*, v. 314, p. 1–5, doi:10.1016/S0040-1951(99)00233-4. [9]
- Thybo, H., Janik, T., Omelchenko, V.D., Grad, M., Garetsky, R.G., Belinsky, A.A., Karatayev, G.I., Zlotski, G., Knudsen, M.E., Sand, R., Yliniemi, J., Tiira, T., Luosto, U., Komminaho, K., Giese, R., Gutcher, A., Lund, C.-E., Kharitonov, O.M., Ilchenko, T., Lysynchuk, D.V., Skobolev, V.M., and Doody, J.J., 2003, Upper lithospheric seismic velocity structure across the Pripyat Trough and the Ukrainian Shield along the EUROBRIDGE '97 profile: *Tectonophysics*, v. 371, p. 41–79, doi:10.1016/S0040-1951(03)00200-2. [2] [9]
- Thybo, H., Sandrin, A., Nielsen, L., Lykke-Andersen, H., and Keller, G.R., 2006, Seismic velocity structure of a large mafic intrusion in the crust of central Denmark from project ESTRID: *Tectonophysics*, v. 420, p. 105–122, doi:10.1016/j.tecto.2006.01.029. [2] [10]
- Tittgemeyer, M., Wenzel, F., Fuchs, K., and Ryberg, T., 1996, Wave propagation in a multiple-scattering upper mantle—observations and modelling: *Geophysical Journal International*, v. 127, p. 492–502, doi:10.1111/j.1365-246X.1996.tb04735.x. [9]
- Todd, B.J., Reid, I., and Keen, C.E., 1988, Crustal structure across the Southwest Newfoundland Transform Margin: *Canadian Journal of Earth Science*, v. 25, p. 744–759. [2] [8]
- Tolstoy, I., Edwards, R.S., and Ewing, M., 1953, Seismic refraction measurements in the Atlantic Ocean, Part III: *Bulletin of the Seismological Society of America*, v. 43, p. 35–48. [5]
- Tomek, C., 1993, Deep crustal structure beneath the central and inner Carpathians: *Tectonophysics*, v. 226, p. 417–431, doi:10.1016/0040-1951(93)90130-C. [8]
- Tomek, C., Dvorakova, L., Ibrmajer, I., Jiricek, R., and Korab, T., 1987, Crustal profiles of active continental collisional belt: Czechoslovak deep seismic reflection profiling in the West Carpathians: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 383–388. [2] [8]
- Tomek, C., Dvorakova, V., and Vrana, S., 1997, Geological interpretation of the 9HR and 503 M seismic profiles in western Bohemia: *Journal of Geological Sciences Prague*, v. 47, p. 43–51. [9]
- Toomey, D.R., Purdy, G.M., Solomon, S.C., and Wilcock, W.S.D., 1990, The three-dimensional seismic velocity structure of the East Pacific Rise near latitude 9°30'N: *Nature*, v. 347, p. 639–645, doi:10.1038/347639a0. [2] [8]
- Toomey, D.R., Hooft, E.E., and Detrick, R.S., 2001, Crustal thickness variations and internal structure of the Galapagos Archipelago: *Eos (Transactions, American Geophysical Union)*, v. 82, no. 47, Fall Meeting Supplement, Abstract T42B-0939. [9]
- Toporkiewicz, 1986, The structure of the consolidated basement: Publications of the Institute of Geophysics, Polish Academy of Sciences, A-13 (160), p. 101–117. [2] [6] [7]
- Torné, M., Pascal, G., Buhl, P., Watts, A.B., and Mauffret, A., 1992, Crustal and velocity structure of the Valencia trough (western Mediterranean). Part II. A combined refraction/wide-angle reflection and near-vertical reflection study, in Banda, E., and Santanach, P., eds., *Geology and Geophysics of the Valencia Trough, Western Mediterranean*: *Tectonophysics*, v. 203, no. 1–4, p. 1–20. [2] [8]
- Tramontini, C.B., and Davies, D., 1969, A seismic refraction survey in the Red Sea: *Geophysical Journal*, v. 17, p. 225–241, doi:10.1111/j.1365-246X.1969.tb02323.. [6]
- TRANSALP Working Group, 2001, European orogenic processes research transects the Eastern Alps: *Eos (Transactions, American Geophysical Union)*, v. 82, p. 453, 460–461, doi:10.1029/01EO00269. [9]
- TRANSALP Working Group, 2002, First deep seismic reflection images of the Eastern Alps reveal giant crustal wedges and transcrustal ramps: *Geophysical Research Letters*, v. 29, no. 10, p. 92.1–92.4, doi:10.1029/2002GL014911. [9]
- Trehu, A.M., 1991, Tracing the subducted oceanic crust beneath central California continental margin: results from ocean bottom seismometers deployed during the 1986 Pacific Gas and Electric EDGE experiment: *Journal of Geophysical Research*, v. 96, p. 6493–6506, doi:10.1029/90JB00494. [8]
- Trehu, A.M., and Nakamura, Y., 1993, Onshore-offshore wide-angle seismic recordings from central Oregon: the ocean bottom seismometer data: U.S. Geological Survey Open-File Report 93-317, 30 p. [2] [8] [9]
- Trehu, A.M., and the Mendocino Working Group, 1995, Pulling the rug out from under California: seismic images of the Mendocino Triple Junction region: *Eos (Transactions, American Geophysical Union)*, v. 76, no. 38, p. 369, 380–381, doi:10.1029/95EO00229. [9]
- Trehu, A.M., and Wheeler, W.H., IV, 1987, Possible evidence in the seismic data of profile SJ-6 for subducted sediments beneath the Coast Ranges of California, USA, in Walter, A.W., and Mooney, W.D., 1987, Commission on Controlled Source Seismology (CCSS) proceedings of the 1985 workshop interpretation of seismic wave propagation in laterally heterogeneous terranes, Susono, Shizuoka, Japan August 15–18, 1985: Interpretations of the SJ-6 seismic reflection/refraction profile, south central California, USA: U.S. Geological Survey Open-File Report 87-73, p. 91–104. [8]
- Trehu, A.M., Ballard, A., Dorman, L.N., Gettrust, J.F., Klitgord, K.D., and Schreiner, A., 1989a, Structure of the lower crust beneath the Carolina trough, U.S. Atlantic continental margin: *Journal of Geophysical Research*, v. 94, p. 10,585–10,600, doi:10.1029/JB094iB08p10585. [8]
- Trehu, A.M., Klitgord, K.D., Sawyer, D.S., and Buffler, R.T., 1989b, Atlantic and Gulf of Mexico continental margins, in Pakiser, L.C., and Mooney, W.D., eds., *Geophysical framework of the continental United States: Geological Society of America Memoir 172*, p. 349–382. [2] [7] [8]
- Trehu, A.M., Holt, T., Shi, J., Nakamura, Y., Brocher, T.M., and Moses, M., 1990, Preliminary results from the 1989 Oregon onshore-offshore seismic imaging experiment: *Eos (Transactions, American Geophysical Union)*, v. 71, p. 1588. [9]
- Trehu, A.M., Azevedo, S., Nabelek, J., Luetgert, J., Mooney, W., Asudeh, I., and Isbell, B., 1993, Seismic-refraction data across the Coast Range and Willamette Basin in central Oregon: the 1991 Pacific Northwest experiment: U.S. Geological Survey Open-File Report, 93-319, 31 p. [8] [9]
- Trehu, A.M., Asudeh, I., Brocher, T.M., Luetgert, J., Mooney, W., Nabelek, J., and Nakamura, Y., 1994, Crustal architecture of the Cascade forearc: *Science*, v. 266, p. 237–243, doi:10.1126/science.266.5183.237. [9]
- Trey, H., Cooper, A.K., Pellis, G., DellaVedova, B., Cochrane, G., Brancolini, G., and Makris, J., 1999, Transect across the West Antarctic rift system in the Ross Sea, Antarctica: *Tectonophysics*, v. 301, p. 61–74, doi:10.1016/S0040-1951(98)00155-3. [2] [9]
- Truffert, C., Burg, J.-P., Cazes, M., Bayer, R., Damotte, B., and Rey, D., 1990, Structures crustales sous le Jura et la Bresse: constraints sismiques et gravimétriques le long des profils ECORS Bresse–Jura et Alpes II: *Mémoires de la Société Géologique de France*, N.S., 156, p. 157–164. [8]
- Tryggvason, E., and Qualls, B.R., 1967, Seismic refraction measurements of crustal structure in Oklahoma: *Journal of Geophysical Research*, v. 72, p. 3738–3740, doi:10.1029/JZ072i014p03738. [6]
- Tsumura, N., Ikawa, H., Ikawa, T., Shinohara, M., Ito, T., Arita, K., Moriya, T., Kimura, G., and Goto, T., 1999, Delamination-wedge structure beneath the Hidaka collision zone, central Hokkaido, Japan inferred from seismic reflection profiling: *Geophysical Research Letters*, v. 26, p. 1057–1060, doi:10.1029/1999GL900192. [2] [9]
- Tsuru, T., Park, J.-O., Miura, S., Kodaira, S., Kido, Y., and Hayashi, T., 2002, Along-arc structural variation of the plate boundary at the Japan Trench margin: Implication of interpolate coupling: *Journal of Geophysical Research*, v. 107, p. 2375, doi:10.1029/2001JB001664. [2] [9] [10]
- Tucholke, B.E., Houtz, R.E., and Barrett, D.M., 1981, Continental crust beneath the Agulhas Plateau, southwest Indian Ocean: *Journal of Geophysical Research*, v. 86, p. 3791–3806, doi:10.1029/JB086iB05p03791. [2] [7]
- Turekian, K.K., 2001, Origin of the oceans, in Steele, J., Thorpe, S., and Turekian, K., eds., *Encyclopedia of Ocean Sciences*: Amsterdam, Academic Press, Elsevier, p. 2055–2058. [10]
- Tuve, M.A., 1948, Seismic sounding: *Carnegie Institution of Washington, Year Book*, v. 47, p. 60–65. [4]
- Tuve, M.A., 1953, The earth's crust: *Carnegie Institution of Washington, Year Book*, v. 52, p. 103–108. [6]
- Tuve, M.A., and Tatel, H.E., 1950a, Coherent seismic wave patterns: *Science*, v. 112, p. 452–543. [4]

- Tuve, M.A., and Tatel, H.E., 1950b, Seismic observations, Corona (California) blast, 1949: *Transactions, American Geophysical Union*, v. 31, p. 324. [4]
- Tuve, M.A., Goranson, R.W., Greig, J.W., Rooney, W.J., Doak, J.B., and England, J.L., 1948, Studies of deep crustal layers by explosive shots: *American Geophysical Union Transactions*, v. 29, p. 772. [2] [4] [5]
- Tuve, M.A., Tatel, H.E., and Hart, P.J., 1954, Crustal structure from seismic exploration: *Journal of Geophysical Research*, v. 59, p. 415–422, doi:10.1029/JZ059i003p00415. [5]
- Twaltwadze, G., 1950, The structure of the earth's crust in the upper Kartli (in Russian): *Soobshchenija Akad. Nauk Grusinskoi SSR* 11 (8), p. 479–482. [2] [4]
- Uchman, J., 1972, Poland, in Sollogub, V.B., Prosen, D., and Miltzner, H., 1972, Crustal structure of central and southeastern Europe based on the results of explosion seismology (publ. in Russian 1971). English translation edited by Szénás, Gy., 1972: *Geophysical Transactions*, special edition, Müszaki Könyvkiado, Budapest, chapter 22, p. 75–79. [2] [6]
- Uchman, J., 1973, Results of deep seismic soundings along international profile V: *Publications of the Institute of Geophysics, Polish Academy of Sciences*, v. 60, p. 47–52. [6]
- United Observing Group of the Yongping Explosion, SSB, 1988, Yongping explosion and deep structure in southeast China, in *Developments in the Research of Deep Structures of China's Continent*: Beijing, Geological Publishing House, p. 140–153. [7] [8]
- Usami, T., Mikumo, T., Shima, E., Tamaki, I., Asano, S., Asada, T., and Matuzawa, T., 1958, Crustal Structure in Northern Kwantu District by Explosion Seismic Observations. Part II. Models of crustal structure: *Bulletin of the Earthquake Research Institute*, v. 36, p. 349–357. [2] [5]
- Valasek, P., Mueller, St., Frei, W., and Holliger, K., 1991, Results of NFP 20 seismic reflection profiling along the Alpine section of the European Geotraverse (EGT): *Geophysical Journal International*, v. 105, p. 85–102, doi:10.1111/j.1365-246X.1991.tb03446.x. [2] [8]
- Van Avendonk, H.J.A., Holbrook, W.S., Okaya, D., Austin, J.K., Davey, F.J., Stern, T., 2004, Continental crust under compression: a seismic refraction study of South Island Geophysical Transect I, South Island, New Zealand: *Journal of geophysical research, Solid earth*, v. 109, no. B6, B06302, doi:10.1029/2003JB002790. [9]
- Van der Hilst, R.D., Kennett, B., Christie, D., and Grant, J., 1994, Project SKIPPY explores the lithosphere and mantle beneath Australia: *Eos (Transactions, American Geophysical Union)*, v. 75, p. 177–181. [2] [9]
- Van der Hilst, R.D., Kennett, B.L.N., and Shibutani, T., 1998, Upper mantle structure beneath Australia from portable array deployments, in Braun, J., Goleby, B., and Van der Hilst, R., eds., *Structure and evolution of the Australian continent: American Geophysical Union Geodynamics Series*, v. 26, p. 39–57, doi:10.1029/94EO00857. [2] [9]
- Van der Velden, A.J., van Staal, C.R., and Cook, F.A., 2004, Crustal structure, fossil subduction, and the tectonic evolution of the Newfoundland Appalachians: *Geological Society of America Bulletin*, v. 116, p. 1485–1498, doi:10.1130/B25518.1. [2] [8]
- VanWagoner, T.M., Crosson, R.S., Creager, K.C., Medema, G., Preston, L., Symons, N.P., and Brocher, T.M., 2002, Crustal structure and relocated earthquakes in the Puget Lowland, Washington, from high-resolution seismic tomography: *Journal of Geophysical Research*, v. 107, no. 12, p. 22-1–22-23. [10]
- Veevers, J.J., and Cotterill, D., 1978, Western margin of Australia: evolution of a rifted arch system: *Geological Society of America Bulletin*, v. 89, p. 337–355, doi:10.1130/0016-7606(1978)89<337:WMAEAO>2.0.CO;2. [8]
- Vera, E.E., and Mutter, J.C., 1988, Crustal structure in the ROSE area of the East Pacific Rise: one-dimensional travel time inversion of sonobuoys and expanding spread profiles: *Journal of Geophysical Research*, v. 93, p. 6635–6648, doi:10.1029/JB093iB06p06635. [7]
- Vera, E.E., and Diebold, J.B., 1994, Seismic imaging of oceanic layer 2A between 9°30'N and 10°N on the East Pacific Rise from two-ship wide-aperture profiles: *Journal of Geophysical Research*, v. 99, p. 3031–3041, doi:10.1029/93JB02107. [8]
- Vera, E.E., Mutter, J.C., Buhl, P., Orcutt, J.A., Harding, A.J., Kappus, M.E., Detrick, R.S., and Brocher, T.M., 1990, The structure of 0- to 0.2-m.y.-old oceanic crust at 9°N on the East Pacific Rise from expanded spread profiles: *Journal of Geophysical Research*, v. 95, p. 15529–15556, doi:10.1029/JB095iB10p15529. [8]
- Vergne, J., Wittlinger, G., Farra, V., and Su, H., 2003, Evidence for upper crustal anisotropy in the Songpan–Ganze (northeastern Tibet) terrane: *Geophysical Research Letters*, v. 30, doi:10.1029/2002GL016847. [9]
- Vidal, N., Klaeschen, D., Kopf, A., Docherty, C., von Huene, R., and Krasheninnikov, V.A., 2000, Seismic images at the convergence zone from south of Cyprus to the Syrian coast, eastern Mediterranean: *Tectonophysics*, v. 329, p. 157–170, doi:10.1016/S0040-1951(00)00194-3. [9]
- Vidale, J., 1988, Finite-difference calculation of travel times: *Bulletin of the Seismological Society of America*, v. 78, p. 2062–2076. [9]
- Vine, F.J., 2001, Magnetics, in Steele, J., Thorpe, S., and Turekian, K., eds., *Encyclopedia of Ocean Sciences*: Amsterdam, Academic Press, Elsevier, p. 1515–1525. [10]
- Vine, F.J., and Moores, E.M., 1972, A model for the gross structure, petrology, and magnetic properties of oceanic crust, in Shagam, R., Hargraves, R.B., Morgan, F.J., Van Houten, F.B., Burk, C.A., Holland, H.D., and Hollister, L.C., eds., *Studies in earth and space sciences: a memoir in honour of Harry Hammond Hess*: Geological Society of America Memoir 132, p. 195–205. [6]
- Vinnik, L.P., and Ryaboi, V.Z., 1981, Deep structure of the East-European platform according to seismic data: *Physics of the Earth and Planetary Interiors*, v. 25, p. 27–37, doi:10.1016/0031-9201(81)90126-6. [7]
- Vogel, A., ed., 1971, Deep seismic sounding in Northern Europe: Swedish Natural Science Research Council (NFR), Stockholm, 98 p. [2] [6]
- Vogel, A., and Lund, C-E., 1971, Profile section 2-3, in *Deep seismic sounding in Northern Europe*: Swedish Natural Science Research Council (NFR), Stockholm, p. 62–75. [2] [6]
- Vogt, U., Makris, J., O'Reilly, B.M., Hauser, F., Readman, P.W., and Jacob, A.W.B., 1998, The Hatton basin and continental margin: crustal structure from wide-angle seismic and gravity data: *Journal of Geophysical Research*, v. 103, p. 12,545–12,566, doi:10.1029/98JB00060. [8] [10]
- Von Huene, R., and Flueh, E.R., 1995, A review of marine geophysical studies along the Middle America Trench off Costa Rica and the problematic seaward terminus of continental crust, in Seyfried, H., and Hellmann, W., eds., *Profile 7*: Stuttgart, Germany, University of Stuttgart, p. 143–159. [9]
- Von Huene, R., and Scholl, D.W., 1991, Observations at convergent margins concerning sediment subduction, subduction erosion, and the growth of continental crust: *Reviews of Geophysics*, v. 29, no. 3, p. 279–316, doi:10.1029/91RG00969. [8]
- Von Knorring, M., and Lund, C-E., 1989, Description of the POLAR profile transect display: *Tectonophysics*, v. 162, p. 165–171, doi:10.1016/0040-1951(89)90362-4. [8]
- Voss, M., Jokat, W., and Schmidt-Aursch, M., 2006, Crustal structure of the East Greenland margin north of Jan Mayen Fracture Zone, in Grad, M., Booth, D., and Tiira, T., eds., *European Seismological Commission (ESC), Subcommission D—Crust and Upper Mantle Structure, Activity Report 2004–2006*. [10]
- Voss, M., Schmidt-Aursch, M., and Jokat, W., 2009, Variations in magmatic processes along the East Greenland volcanic margin: *Geophysical Journal International*, v. 177, p. 755–782, doi:10.1111/j.1365-246X.2009.04077.x. [10]
- Waldhauser, F., Kissling, E., Ansorge, J., and Mueller, St., 1999, Three-dimensional interface modelling with two-dimensional seismic data: the Alpine crust–mantle boundary: *Geophysical Journal International*, v. 135, p. 264–278, doi:10.1046/j.1365-246X.1998.00647.x. [9]
- Walter, A.W., 1990, Upper-crustal velocity structure near Coalinga, as determined from seismic-refraction data, in Rymer, M.J., and Ellsworth, W.L., eds., *The Coalinga, California, earthquake of May 2, 1983*: U.S. Geological Survey Professional Paper 1487, p. 23–39. [2] [8]
- Walter, A.W., and Mooney, W.D., 1982, Crustal structure of the Diablo and Gabilan Ranges, central California: a reinterpretation of existing data: *Bulletin of the Seismological Society of America*, v. 72, p. 1567–1590. [2] [6] [7] [9]
- Walter, A.W., and Mooney, W.D., 1987, Commission on Controlled Source Seismology (CCSS) proceedings of the 1985 workshop interpretation of seismic wave propagation in laterally heterogeneous terranes, Susono, Shizuoka, Japan, August 15–18, 1985: Interpretations of the SJ-6 seismic reflection/refraction profile, south central California, USA: U.S. Geological Survey Open-File Report 87-73, 132 p. [2] [8] [9] [10]
- Walther, C., and Flueh, E.R., 1993, The POLAR profile revisited: combined P- and S-wave interpretation: *Precambrian Research*, v. 64, p. 153–168, doi:10.1016/0301-9268(93)90073-B. [8]
- Wang, C-Y, Zeng, R-S, Mooney, W.D., and Hacker, B.R., 2000, A crustal model of the ultrahigh-pressure Dabie Shan orogenic belt, China, derived from deep seismic refraction profiling: *Journal of Geophysical Research*, v. 105, p. 10,857–10,869, doi:10.1029/1999JB900415. [9]

- Wang, Y., Mooney, W.D., Yuan, X., and Coleman, R.G., 2003, The crustal structure from the Altai Mountains to the Altyn Tagh fault, northwest China: *Journal of Geophysical Research*, v. 108, B6, 2322, doi: 10.1029/2001JB000552; ESE 7-1-7-15. [2] [8] [9]
- Ward, G., and Warner, M., 1991, Lower crustal lithology from shear wave seismic reflection data, in Meissner, R., Brown, L., Dürbaum, H.-J., Franke, W., Fuchs, K., and Seifert, F., eds., *Continental lithosphere: deep seismic reflections*: American Geophysical Union, Geodynamics Series, v. 22, p. 343–349. [2] [8]
- Ward, W.C., Keller, G., Stennesbeck, W., and Adatte, T., 1995, Yucatan subsurface stratigraphy: implications and constraints for the Chicxulub impact: *Geology*, v. 23, p. 873–876, doi:10.1130/0091-7613(1995)023<0873:YNSSIA>2.3.CO;2. [9]
- Wardle, R.J., and Hall, J., eds., 2002a, Proterozoic evolution of the northeastern Canadian Shield: Lithoprobe Eastern Canadian Shield Onshore-Offshore Transect (ECSOOT): *Canadian Journal of Earth Science*, v. 39, p. 563–897, doi:10.1139/e02-029. [2] [9]
- Wardle, R.J., and Hall, J., 2002b, Proterozoic evolution of the northeastern Canadian Shield. Onshore-offshore transect (ECSOOT), introduction and summary: *Canadian Journal of Earth Science*, v. 39, p. 563–567, doi:10.1139/e02-029. [9]
- Warren, D.H., 1968a, Transcontinental geophysical survey (35°–39°N) seismic refraction profiles of the crust and upper mantle from 113° to 125°W longitude: U.S. Geological Survey Miscellaneous Investigations Map I-532-D. [6]
- Warren, D.H., 1968b, Transcontinental geophysical survey (35°–39°N) seismic refraction profiles of the crust and upper mantle from 100° to 113°W longitude: U.S. Geological Survey Miscellaneous Investigations Map I-533-D. [6]
- Warren, D.H., 1968c, Transcontinental geophysical survey (35°–39°N) seismic refraction profiles of the crust and upper mantle from 87° to 100°W longitude: U.S. Geological Survey Miscellaneous Investigations Map I-534-D. [6]
- Warren, D.H., 1968d, Transcontinental geophysical survey (35°–39°N) seismic refraction profiles of the crust and upper mantle from 74° to 87°W longitude: U.S. Geological Survey Miscellaneous Investigations Map I-535-D. [6]
- Warren, D.H., 1969, A seismic survey of crustal structure in central Arizona: *Geological Society of America Bulletin*, v. 80, p. 257–282, doi:10.1130/0016-7606(1969)80[257:ASSOCS]2.0.CO;2. [2] [6] [7] [8]
- Warren, D.H., 1981, Seismic-refraction measurements of crustal structure near Santa Rosa and Ukiah, California, in McLaughlin, R.J., and Donnelly-Nolan, I.M., eds., *Research in The Geysers–Clear Lake Geothermal Area, Northern California*: U.S. Geological Survey Professional Paper 1141, p. 167–181. [7] [9]
- Warren, D.H., and Healy, J.H., 1973, The crust in the conterminous United States, in Mueller, S., ed., *The structure of the earth's crust, based on seismic data*: *Tectonophysics*, v. 20, p. 203–213. [2] [6] [10]
- Warren, D.H., and Jackson, W.H., 1968, Surface seismic measurements of the Project Gasbuggy explosion at intermediate distance ranges: U.S. Geological Survey Open-File Report, 45 p. [6]
- Warren, D.H., Healy, J.H., and Jackson, W.H., 1966, Crustal seismic measurements in southern Mississippi: *Journal of Geophysical Research*, v. 71, p. 3437–3458. [6]
- Warren, D.H., Healy, J.H., Bohn, J., and Marshall, P.A., 1972, Crustal calibration of the Large Aperture Seismic Array (LASA), Montana: U.S. Geological Survey Open-File Report, p. 1–58 and A1–A105. [6]
- Warren, D.H., Healy, J.H., Bohn, J., and Marshall, P.A., 1973, Crustal structure under Lasa from seismic refraction measurements: *Journal of Geophysical Research*, v. 78, p. 8721–8734, doi:10.1029/JB078i035p08721. [2] [6]
- Warrick, R.E., Hoover, D.B., Jackson, W.H., Pakiser, L.C., and Roller, J.C., 1961, The specification and testing of a seismic-refraction system: *Geophysics*, v. 26, p. 820–824, doi:10.1190/1.1438963. [6]
- Watts, A.B., ten Brink, U.S., Buhl, P., and Brocher, T.M., 1985, A multichannel seismic study of lithospheric flexure across the Hawaiian-Emporer seamount chain: *Nature*, v. 315, p. 105–111, doi:10.1038/315105a0. [2] [8]
- Weatherby, B.B., 1940, The history and development of seismic prospecting: *Geophysics*, v. 5, p. 215–230, doi:10.1190/1.1441805. [3]
- Weber, J.R., 1986, The Alpha Ridge: Gravity, seismic and magnetic evidence for a homogenous, mafic crust: *Journal of Geodynamics*, v. 6, p. 117–136, doi:10.1016/0264-3707(86)90036-0. [8]
- Weber, J.R., 1990, The structures of the Alpha Ridge, Arctic Ocean and Ice-land–Faeroe Ridge, North Atlantic: Comparisons and implications for the evolution of the Canada Basin: *Marine Geology*, v. 93, p. 43–68, doi:10.1016/0025-3227(90)90077-W. [8]
- Weber, M., Mechic, J., Abu-Ayyash, K., Ben-Avraham, Z., El-Kelani, R., Qabbani, I., and DESIRE Group, 2007, Seismic wide-angle reflection/refraction profiling from the DESIRE project reveals the deep structure across the Southern Dead Sea Basin: *Eos (Transactions, American Geophysical Union)*, v. 88, no. 52, Fall Meeting Suppl., Abstract T43A-1077. [9] [10]
- Wefer, G., Weigel, W., Pfannkuche, O., eds., 1991, *Ostatlantik–Expedition Meteor-Berichte M5*, no. 91-1. Leistelle METEOR, Institute Meereskunde, University of Hamburg, 166 p. (Chapters 5.31–5.3.2, Reflexions und Refraktionsseismik, p. 18–24, 84–104) [9]
- Wegler, U., and Lühr, B.-G., 2001, Scattering behaviour at Merapi volcano (Java) revealed from an active seismic experiment: *Geophysical Journal International*, v. 145, p. 579–592, doi:10.1046/j.1365-246x.2001.01390.x. [2] [9]
- Weichert, D.H., and Whitham, K., 1969, Calibration of the Yellowknife Seismic Array with first zone explosions: *Geophysical Journal of the Royal Astronomical Society*, v. 18, p. 461–476. [2] [6]
- Weigel, W., 1974, Crustal structure under the Ionian Sea: *Journal of Geophysics*, v. 40, p. 137–140. [2] [6] [7]
- Weigel, W., and Greve Meyer, I., 1999, The Great Meteor seamount: seismic structure of a submerged intraplate volcano: *Journal of Geodynamics*, v. 28, p. 27–40, doi:10.1016/S0264-3707(98)00030-1. [2] [6] [9]
- Weigel, W., and Wissmann, G., 1977, A first crustal section from seismic observations west of Mauretania, in *Proceedings, XV General Assembly of the European Seismological Commission (Krakow 1976)*: Publications of the Institute of Geophysics, Polish Academy of Sciences, A-4 (115), p. 369–380. [7]
- Weigel, W., Flüth, E., Miller, H., Butzke, A., Deghani, A., Gebhardt, V., Harder, I., Hepper, J., Jokat, W., Kläschen, D., Schübeler, S., and Zhao-Groekart, Z., 1995, Investigations of the East Greenland continental margin between 70° and 72°N by deep seismic sounding and gravity studies: *Marine Geophysics Research*, v. 17, p. 167–199, doi:10.1007/BF01203425. [2] [8]
- Welford, J.K., and Clowes, R.M., 2004, Deep 3-D seismic reflection imaging of Precambrian sills in southwestern Alberta, Canada: *Tectonophysics*, v. 388, p. 161–172, doi:10.1016/j.tecto.2003.11.015. [9]
- Welford, J.K., Clowes, R.M., Ellis, R.M., Spence, G.D., Asudeh, I., and Hajnal, Z., 2001, Lithospheric structure across the craton–Cordilleran transition of northeastern British Columbia: *Canadian Journal of Earth Science*, v. 38, p. 1169–1189, doi:10.1139/cjes-38-8-1169. [9]
- Wentworth, C.M., and Zoback, M.D., 1990, Structure of the Coalinga area and thrust origin of the earthquake, in Rymer, M.J., and Ellsworth, W.L., eds., *The Coalinga, California, earthquake of May 2, 1983*: U.S. Geological Survey Professional Paper 1487, p. 41–68. [8]
- Wentworth, C.M., Walter, A.W., Bartow, J.A., and Zoback, M.D., 1983, Evidence on the tectonic setting of the 1983 Coalinga earthquakes from deep reflection and refraction profiles across the southeastern end of Kettleman Hills, in Bennett, J.H., and Sherburne, R.W., *The 1983 Coalinga, California, earthquakes: California Division of Mines and Geology Special Publication*, v. 66, p. 113–126. [8]
- Wentworth, C.M., Zoback, M.D., and Bartow, J.A., 1984, Tectonic setting of the 1983 Coalinga earthquakes from seismic reflection profiles: a progress report, in Rymer, M.J., and Ellsworth, W.L., eds., *Proceedings of Workshop XXVII: Mechanics of the May 2, 1983 Coalinga earthquake: U.S. Geological Survey Open-File Report 85-44*, p. 19–30. [8]
- Wentworth, C.M., Zoback, M.D., Griscom, A., Jachow, R.C., and Walter, D., 1987, A transect across the Mesozoic accretionary margin of central California: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 105–110. [8]
- Wenzel, F., 1997, Strong Earthquakes: A challenge for geosciences and civil engineering—a new Collaborative Research Center in Germany: *Seismological Research Letters*, v. 68, p. 438–443. [9]
- Wenzel, F., Sandmeier, K.-J., and Waeld, W., 1987, Properties of the lower crust from modeling refraction and reflection data: *Journal of Geophysical Research*, v. 92, p. 11,575–11,583, doi:10.1029/JB092iB11p11575. [8]
- Wenzel, F., Brun, J.-P., and the ECORS-DEKOPR Working Group, 1991, A deep reflection seismic line across the northern Rhine Graben from ECORS-DEKOPR deep seismic reflection data: *Earth and Planetary Science Letters*, v. 104, p. 140–150, doi:10.1016/0012-821X(91)90200-2. [2] [8]
- Wenzel, F., Lungu, D. and Novak, O., eds., 1998a, *Vrancea Earthquakes: Tectonics, Hazard and Risk Mitigation*. Selected papers of the First Inter-

- national Workshop on Vrancea Earthquakes, Bucharest, November 1–4, 1997, Kluwer Academic Publishers, Dordrecht, Netherlands, 374 p. [9]
- Wenzel, F., Achauer, U., Enescu, D., Kissling, E., Russo, R., Mocanu, V. and Mussachio, G., 1998b, The final stage of plate detachment; International tomographic experiment in Romania aims to a high-resolution snapshot of this process: *Eos (Transactions, American Geophysical Union)*, v. 79, p. 589, 592–594, doi:10.1029/98EO00427. [9]
- Wernicke, B., Clayton, R., Dueca, M., Jones, C.H., Park, S., Ruppert, S., Saleeby, J., Snow, J.K., Squires, L., Fliedner, M., Jiracek, G., Keller, R., Klempner, S., Luetgert, J., Malin, P., Miller, K., Mooney, W., Oliver, H., and Phinney, R., 1996, Origin of high mountains in the continents: the southern Sierra Nevada: *Science*, v. 271, p. 190–193, doi:10.1126/science.271.5246.190. [9]
- White, D.J., Ansorge, J., Bodoky, T.J., and Hajnal, Z., eds., 1996, Seismic reflection profiling of the continents and their margins: *Tectonophysics*, v. 264, 392 p. [2] [9]
- White, D.J., Forsyth, D., Asudeh, I., Carr, S.D., Wu, H., Easton, R.M., and Mereu, R.F., 2000, A seismic-based cross-section of the Grenville Orogen in southern Ontario and western Quebec: *Canadian Journal of Earth Science*, v. 37, p. 183–192, doi:10.1139/cjes-37-2-3-183. [8] [9]
- White, D.J., Thomas, M.D., Jones, A.G., Hope, J., Nemeth, B., and Hajnal, Z., 2005, Geophysical transect across a Paleoproterozoic continent-continent collision zone: The Trans-Hudson Orogen: *Canadian Journal of Earth Science*, v. 42, p. 385–402, doi:10.1139/e05-002. [9]
- White, R.E., 1969, Seismic phases recorded in South Australia and their relation to crustal structure: *Geophysical Journal of the Royal Astronomical Society*, v. 17, p. 249–261. [2] [6]
- White, R.S., and Whitmarsh, R.B., 1984, An investigation of seismic anisotropy due to cracks in the upper oceanic crust at 45°N, Mid-Atlantic Ridge: *Geophysical Journal of the Royal Astronomical Society*, v. 79, p. 439–467. [2] [7] [8]
- White, R.S., Detrick, R.S., Sinha, M.C., and Cormier, M.-H., 1984, Anomalous seismic crustal structure of oceanic fracture zones: *Geophysical Journal of the Royal Astronomical Society*, v. 79, p. 779–798. [9]
- White, R.S., Detrick, R.S., Mutter, J.C., Buhl, P., Minshull, T.A., and Morris, E., 1990, New seismic images of the oceanic crustal structure: *Geology*, v. 18, p. 462–465, doi:10.1130/0091-7613(1990)018<0462:NSIOOC>2.3.CO;2. [2] [8]
- White, R.S., McKenzie, D., and O'Nions, R.K., 1992, Oceanic crustal thickness from seismic measurements and rare earth element inversions: *Journal of Geophysical Research*, v. 97, p. 19,683–19,715, doi:10.1029/92JB01749. [7]
- White, W.R.H., and Savage, J.C., 1965, A seismic refraction and gravity study of the earth's crust in British Columbia: *Bulletin of the Seismological Society of America*, v. 55, p. 463–486. [6]
- White, W.R.H., Bone, M.N., and Milne, W.G., 1968, Seismic refraction surveys in British Columbia—a preliminary interpretation, in Knopoff, L., Drake, C.L., and Pembroke, J.H., eds., *The crust and upper mantle of the Pacific area*: Washington, D.C., American Geophysical Union, *Geophysical Monograph* 12, p. 81–93. [6]
- Whitman, D., and Catchings, R.D., 1987, Data report for the vertical-component seismic refraction data obtained during the 1986 PASSCAL Basin and Range lithospheric seismic experiment, northern Nevada: Menlo Park, California, U.S. Geological Survey Open-File Report 87-415, 72 p. [2] [8]
- Whitmarsh, R.B., 1975, Axial intrusion zone beneath the Median Valley of the Mid-Atlantic Ridge at 37°N detected by explosion seismology: *Geophysical Journal of the Royal Astronomical Society*, v. 42, p. 189–215, doi:10.1111/j.1365-246X.1975.tb05857.x. [2] [7]
- Whitmarsh, R.B., and Calvert, A.J., 1986, Crustal structure of Atlantic fracture zones—I. The Charlie-Gibbs fracture zone: *Geophysical Journal of the Royal Astronomical Society*, v. 85, p. 107–138. [2] [8]
- Whitmarsh, R.B., and Lilwall, R.C., 1983, Ocean-bottom seismographs, in Bott, M.H.P., Saxov, X., Talwani, M., and Thiede, J., eds., *Structure and development of the Greenland-Scotland Ridge*: Plenum, New York, p. 257–286. [7] [8]
- Whitmarsh, R.B., Ginzburg, A., and Searle, R.C., 1982, The structure and origin of the Azores-Biscay Rise, northeast Atlantic Ocean: *Geophysical Journal of the Royal Astronomical Society*, v. 70, p. 79–107. [2] [7]
- Whittaker, A., and Chadwick, R.A., 1983, Deep seismic reflection profiling on shore United Kingdom: First Break, 1/8, p. 9–13. [7] [8]
- Wiechert, E., 1903, Theorie der automatischen Seismographen: *Abhandlungen der Königliche Gesellschaft der Wissenschaften zu Göttingen: Mathematisch-physikalische Klasse*, p. 3–128. [3]
- Wiechert, E., 1907, Was wissen wir von der Erde unter uns?: *Deutsche Rundschau*, v. 33, p. 376–394. [3]
- Wiechert, E., 1910, Bestimmung des Weges der Erdbebenwellen im Erdinnern: *Physikalische Zeitschrift*, v. 1, p. 294–311. [3]
- Wiechert, E., 1923, Untersuchungen der Erdrinde mit dem Seismometer unter Benutzung künstlicher Erdbeben: *Gesellschaft der Wissenschaften zu Göttingen Nachrichten, Mathematisch-physikalische Klasse*, p. 57–70. [2] [3]
- Wiechert, E., 1926, Untersuchungen der Erdrinde mit Hilfe von Sprengungen: *Geologische Rundschau*, v. 17, p. 339–346, doi:10.1007/BF01802787. [2] [3] [4]
- Wiechert, E., 1929, Seismische Beobachtungen bei Steinbruchssprengungen: *Zeitschrift für Geophysik*, v. 5, p. 159–162. [2] [3]
- Wiechert, E., and Zoepritz, K., 1907, Über Erdbebenwellen. 1.Teil Theoretisches über die Ausbreitung der Erdbebenwellen (E. Wiechert), 2.Teil Laufzeitkurven (K. Zoepritz). *Königliche Gesellschaft der Wissenschaften zu Göttingen Nachrichten, Mathematisch-physikalische Klasse*, p. 415–459. [3]
- Wielandt, E., 1972, Anregung seismischer Wellen durch Unterwasserexplosionen [Ph.D. thesis]: University of Karlsruhe, 120 p. [7]
- Wielandt, E., 1975, Generation of seismic waves by underwater explosions: *Geophysical Journal of the Royal Astronomical Society*, v. 40, p. 421–439. [7]
- Wigger, P., 1986, Krustenseismische Untersuchungen in Nord-Chile und Süd-Bolivien: *Berliner Geowissenschaftliche Abhandlungen*, v.A66, p. 31–48. [2] [8]
- Wigger, P., and Harder, S., 1986, Seismologische und krustenseismische Untersuchungen im Atlas-System, Marokko: *Berliner Geowissenschaftliche Abhandlungen*, v. A66, p. 273–288. [8]
- Wigger, P., Araneda, M., Giese, P., Heinsohn, W.-D., Röwer, P., Schmitz, M., and Viramonte, J., 1991, The crustal structure along the Central Andean Transect derived from seismic refraction investigations, in Omarini, R., and Götz, H.-J., eds., *Central Andean Transect, Nazca Plate to Chaco Plains, southwestern Pacific, northern Chile and northern Argentina: Global Geoscience Transect 8*, co-published by Inter Union Commission on the Lithosphere and American Geophysical Union, p. 13–19. [8]
- Wigger, P., Asch, G., Giese, P., Heinsohn, El Alami, S.O., and Ramdani, F., 1992, Crustal structure along a traverse across the Middle and High Atlas mountains derived from seismic refraction studies: *Geologische Rundschau*, v. 81, p. 237–248. [2] [8]
- Wigger, P., Schmitz, M., Araneda, M., Asch, G., Baldzuhn, S., Giese, P., Heinsohn, W.-D., Martinez, E., Ricaldi, E., Röwer, P., and Viramonte, J., 1994, Variation of the crustal structure of the southern Central Andes deduced from seismic refraction investigations, in Reutter, K.-J., Scheuber, E., Wigger, P., eds., *Tectonics of the Southern Central Andes*: New York, Springer, p. 23–48. [2] [8]
- Wiggins, S.M., Dorman, L.M., Cornuelle, B.D., and Hildebrand, J.A., 1996, Hess Deep rift valley structure from seismic tomography: *Journal of Geophysical Research*, v. 101, p. 22,335–22,353, doi:10.1029/96JB01230. [2] [9]
- Wilde-Piorko, M., Grad, M., and TOR Working Group, 2002, Crustal structure variation from the Precambrian to Palaeozoic platforms in Europe imaged by the inversion of teleseismic receiver functions—proct TOR: *Geophysical Journal International*, v. 150, p. 261–270, doi:10.1046/j.1365-246X.2002.01699.x. [9]
- Will, M., 1976, Calculation of travel times and ray paths for lateral inhomogeneous media, in Giese, P., Prodehl, C., and Stein, A., eds., *Explosion seismology in central Europe—data and results*: Berlin-Heidelberg-New York, Springer, p. 168–177. [7] [8]
- Willden, R., 1965, Seismic refraction measurements of crustal structure between American Falls Reservoir, Idaho, and Flaming Gorge Reservoir, Utah, in *Geological Survey Research, U.S. Geological Survey Professional Paper*, 525-C, p. C44–C50. [6]
- Williams, A.J., Brocher, T.M., Mooney, W.D., and Boken, A., 1999, Data report for seismic refraction survey conducted from 1980 to 1982 in the Livermore Valley and the Santa Cruz Mountains, California: Menlo Park, California, U.S. Geological Survey Open-File Report 99-146, 78 p. [2] [8]
- Williamson, P.E., Collins, C.D.N., and Falvey, D.A., 1989, Crustal structure and formation of a magnetic quiet zone in the Australian southern margin: *Marine and Petroleum Geology*, v. 6, p. 221–231, doi:10.1016/0264-8172(89)90002-0. [8]
- Willmore, P.L., 1949, Seismic experiments on the North German explosions, 1946–1947: *Philosophical Transactions, A*, no. 843, p. 123–151. [4]

- Willmore, P.L., 1973, Crustal structure in the region of the British Isles: *Tectonophysics*, v. 20, p. 341–357, doi:10.1016/0040-1951(73)90122-4. [2] [6] [8]
- Willmore, P.L., and Bancroft, A.M., 1960, The time-term approach to refraction seismology: *Geophysical Journal of the Royal Astronomical Society*, v. 3, p. 419–432. [6] [10]
- Willmore, P.L., and Scheidegger, A.E., 1956, Seismic observations in the Gulf of Lawrence: *Transactions, Royal Society of Canada*, v. 111, no. 50, p. 21–38. [6] [10]
- Willmore, P.L., Hales, A.L., and Gane, P.G., 1952, A seismic investigation of crustal structure in the western Transvaal: *Bulletin of the Seismological Society of America*, v. 42, p. 53–80. [2] [4] [5]
- Wilson, J.M., and Fuis, G.S., 1987, Data report for the Chemehuevi, Vidal, and Dutch Flat lines, PACE, seismic-refraction survey, southeastern California and western Arizona: Menlo Park, California, U.S. Geological Survey Open-File Report 87-86, 75 p. [8]
- Wilson, J.M., Meador, P., and Fuis, G.S., 1987, Data report for the 1985 TACT seismic refraction survey, south-central Alaska: Menlo Park, California, U.S. Geological Survey Open-File Report 87-440, 78 p. [8]
- Wilson, J.M., McCarthy, J., Johnson, R.A., and Howard, K.A., 1991, An axial view of a metamorphic core complex: crustal structure of the Whipple and Chemehuevi Mountains, southeastern California and western Arizona: *Journal of Geophysical Research*, v. 96, p. 12,293–12,311, doi:10.1029/91JB01003. [8]
- Winardhi, S., and Mereu, R.F., 1997, Crustal velocity structure of the Superior and Grenville provinces of the southeastern Canadian Shield: *Canadian Journal of Earth Science*, v. 34, p. 1167–1184, doi:10.1139/e17-094. [9]
- Wissinger, E.S., Levander, A., and Christensen, N.I., 1997, Seismic images of crustal duplexing and continental subduction in the Brooks Range: *Journal of Geophysical Research*, v. 102, p. 20,847–20,871, doi:10.1029/96JB03662. [8]
- Wittlinger, G., Tapponnier, P., Poupinet, G., Mei, J., Shi, D., Herquel, G., and Masson, F., 1998, Tomographic evidence for localized lithosphere shear along the Altyn Tagh fault: *Science*, v. 281, p. 74–76, doi:10.1126/science.282.5386.74. [9]
- Wittlinger, G., Vergne, J., Tapponnier, P., et al., 2004, Teleseismic imaging of subducting lithosphere and Moho offsets beneath western Tibet: *Earth and Planetary Science Letters*, v. 221, p. 117–130, doi:10.1016/S0012-821X(03)00723-4. [9]
- Wojtczak-Gadomska, B., Gutersch, A., and Uchman, J., 1964, Preliminary results of deep seismic soundings in Poland: *Bulletin de l'Academie Polonaise des Sciences, Série des Sci. Géol. et Géogr.*, v. XII, no. 4, p. 205–211. [6]
- Wolf, L.W., and Cipar, J.J., 1993, Through thick and thin: a new model for the Colorado Plateau from seismic refraction data from Pacific to Arizona crustal experiment: *Journal of Geophysical Research*, v. 98, p. 19,881–19,894, doi:10.1029/93JB02163. [8]
- Wood, H.O., and Richter, C.F., 1931, A study of blasting recorded in southern California: *Bulletin of the Seismological Society of America*, v. 21, p. 28–46. [2] [3]
- Wood, H.O., and Richter, C.F., 1933, A second study of blasting recorded in southern California: *Bulletin of the Seismological Society of America*, v. 23, p. 95–110. [2] [3]
- Woollard, G.P., 1975, The interrelationship of crustal and upper mantle parameter values in the Pacific: *Reviews of Geophysics and Space Physics*, v. 13, p. 87–137, doi:10.1029/RG013i001p00087. [2] [7] [10]
- Woollard, G.P., and Ewing, M., 1939, Structural geology of the Bermuda islands: *Nature*, v. 143, p. 898, doi:10.1038/143898a0. [2] [3]
- Working Group for Deep Seismic Sounding in Spain 1974–1975, 1977, Deep seismic soundings in southern Spain: *PAGEOPH*, v. 115, p. 721–735. [7]
- Worzel, J.L., and Ewing, M., 1948, Propagation of sound in the ocean: *Geological Society of America Memoir* 27, 35 p. [2] [10]
- Wright, C., Goleby, B.R., Collins, C.D.N., Korsch, R.J., Barton, T., Sugiharto, S., and Greenhalgh, S.A., 1990, Deep seismic reflection profiling in central Australia: *Tectonophysics*, v. 173, p. 247–256, doi:10.1016/0040-1951(90)90221-S. [2] [8]
- Wright, J.A., and Hall, J., 1990, Deep seismic probing in the Nosop basin, Botswana: cratons, mobile belts and sedimentary basins, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins: Tectonophysics*, v. 173, p. 333–343. [2] [8]
- Wrinch, D., and Jeffreys, H., 1923, On the seismic waves from the Oppau explosion of 1921, Sept. 21, *Monthly Notices: Geophysical Journal of the Royal Astronomical Society, Suppl.*, v. 1, p. 15–22. [3]
- Yamanaka, Y., and Kikuchi, M., 2004, Asperity map along the subduction zone in northeastern Japan inferred from regional seismic data: *Journal of Geophysical Research*, v. 109, B07307, doi:10.1029/2003JB002683. [10]
- Yan, Q.Z., and Mechie, J., 1989, A fine structural section through the crust and lower lithosphere along the axial region of the Alps: *Geophysical Journal International*, v. 98, p. 465–488, doi:10.1111/j.1365-246X.1989.tb02284.x. [2] [7]
- Ye, S., 1991, Crustal structure beneath the central Swiss Alps derived from seismic refraction data [Ph.D. thesis]: Swiss Federal Institute of Technology Zürich (ETH), 114 p. [2] [8]
- Ye, S., Flueh, E.R., Klaeschen, D., and von Huene, R., 1997, Crustal structure along the EDGE transect beneath the Kodiak shelf off Alaska derived from OBH seismic refraction data: *Geophysical Journal International*, v. 130, p. 283–302, doi:10.1111/j.1365-246X.1997.tb05648.x. [2] [9]
- Ye, S., Canales, J.P., Rihm, R., Danobeitia, J.J., and Gallart, J., 1999, A crustal transect through the northern and northeastern part of the volcanic edifice of Gran Canaria, Canary islands: *Journal of Geodynamics*, v. 28, p. 3–26, doi:10.1016/S0264-3707(98)00028-3. [2] [9]
- Yilmaz, Ö., 1987, Seismic data processing, in Neitzel, E.B., ed., *Investigations in Geophysics*: Tulsa, Oklahoma, Society of Exploration Geophysics. [2] [10]
- Yin, Z., Teng, J., and Liu, H., 1990, The 2-D crustal structure study in the Yadong-Damxung region of the Xizang plateau: *Bulletin of the Chinese Academy of Geological Sciences*, v. 21, p. 239–245. [9]
- Yoon, M.-K., Baykulov, M., Dümmong, S., Brink, H.-J., and Gajewski, D., 2008, Reprocessing of deep seismic reflection data from the North German Basin with the common reflection surface stack: *Tectonophysics*, doi:10.1016/J.tecto.2008.05.010. [2] [7] [8]
- Yoon, M., Buske, S., Lüth, S., Schulze, A., Shapiro, S.A., Stiller, M., and Wigger, P., 2003, Along-strike variations of crustal reflectivity related to the Andean subduction process: *Geophysical Research Letters*, v. 30, no. 4, 1160, doi:10.1029/2002GL015848. [2] [9]
- Yoshii, T., 1994, Crustal structure of the Japanese Islands revealed by explosion seismic observations: *Zisin*, v. 46, p. 479–491 (in Japanese with English abstract). [2] [7]
- Yoshii, T., and Asano, S., 1972, Time-term analyses for explosive seismic data: *Journal of the Physics of the Earth*, v. 20, p. 47–57. [2] [6] [7]
- Yoshii, T., Sasaki, Y., Tada, T., Okada, H., Asano, S., Muramatsu, I., Hashizume, M., and Moriya, T., 1974, The third Kurayoshi explosion and the crustal structure in the western part of Japan: *Journal of the Physics of the Earth*, v. 22, p. 109–121. [2] [6]
- Yoshii, T., Okada, H., Asano, S., Ito, K., Hasegawa, T., Ikami, A., Moriya, T., Suzuki, S., and Hamada, K., 1981, Regionality of the upper mantle around northeastern Japan as revealed by big explosions at sea II. SEIHA-2 and SEHA-3 experiment: *Journal of Physics of the Earth*, v. 29, p. 201–220. [7]
- Yoshii, T., Asano, S., Kubota, S., Sasaki, Y., Okada, T., Moriya, T., and Murakami, H., 1985, Crustal Structure of Izu Peninsula, central Japan, as derived from explosion seismic observations. 2. Ito-Matsuzaki profile: *Journal of the Physics of the Earth*, v. 33, p. 435–451. [2] [7] [8]
- Yuan, X., Wang, S., Li, L., and Zhu, J., 1986, A geophysical investigation of deep structure in China, in Barazangi, M., and Brown, L., eds., *Reflection seismology: a global perspective*: American Geophysical Union, Geodynamics Series, v. 13, p. 151–160. [2] [7] [8]
- Yuan, X., Ni, J., Kind, R., Mechic, J., and Sandvol, E., 1997, Lithospheric and upper mantle structure of southern Tibet from a seismological passive source experiment: *Journal of Geophysical Research*, v. 102, p. 27,491–27,500, doi:10.1029/97JB02379. [9]
- Zehnder, C.M., Mutter, J.C., and Buhl, P., 1990, Deep seismic and geochemical constraints on the nature of rift-induced magmatism during breakup of the North Atlantic, in Leven, J.H., Finlayson, D.M., Wright, C., Dooley, J.C., and Kennett, B.L.N., eds., *Seismic probing of continents and their margins: Tectonophysics*, v. 173, p. 545–565. [2] [8]
- Zeilhuis, A., and van der Hilst, R.D., 1996, Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays: *Geophysical Journal International*, v. 127, p. 1–16, doi:10.1111/j.1365-246X.1996.tb01530.x. [2] [9]
- Zeis, St., Gajewski, D., and Prodehl, C., 1990, Crustal structure of Southern Germany from seismic-refraction data, in Freeman, R., and Mueller, St., eds., *The European Geotraverse, Part 6: Tectonophysics*, v. 176, p. 59–86. [2] [8]

- Zelt, B.C., Ellis, R.M., Clowes, R.M., Kanasewich, E.R., Asudeh, I., Hajnal, Z., Luetgert, J.H., Ikami, A., Spence, G.D., and Hyndman, R.D., 1992, Crust and upper mantle velocity structure of the Intermontane belt, southern Canadian Cordillera: Canadian Journal of Earth Science, v. 29, p. 1530–1548, doi:10.1139/e92-121. [8]
- Zelt, B.C., Ellis, R.M., and Clowes, R.M., 1993, Crustal velocity structure in the eastern Insular and southernmost coast belts, Canadian Cordillera: Canadian Journal of Earth Science, v. 30, p. 1014–1027, doi:10.1139/e93-085. [8]
- Zelt, B.C., Ellis, R.M., Clowes, R.M., and Hole, J.A., 1996, Inversion of three-dimensional wide-angle seismic data from the southwestern Canadian Cordillera: Journal of Geophysical Research, v. 101, p. 8503–8529, doi:10.1029/95JB02807. [9]
- Zelt, C.A., 1998, Lateral velocity resolution from three-dimensional seismic refraction data: Geophysical Journal International, v. 135, p. 1101–1112, doi:10.1046/j.1365-246X.1998.00695.x. [2] [9]
- Zelt, C.A., 1999, Modelling strategies and model assessment for wide-angle seismic traveltime data: Geophysical Journal International, v. 139, 183–204, doi:10.1046/j.1365-246X.1999.00934.x. [2] [9] [10]
- Zelt, C.A., and Barton, P.J., 1998, Three-dimensional seismic refraction tomography: a comparison of two methods applied to data from the Faeroe Basin: Journal of Geophysical Research, v. 103, p. 7187–7210, doi:10.1029/97JB03536 [9]
- Zelt, C.A., and Smith, R.B., 1992, Seismic traveltimes inversion for 2-D crustal velocity structure: Geophysical Journal International, v. 108, p. 16–34, doi:10.1111/j.1365-246X.1992.tb00836.x. [2] [9] [10]
- Zelt, C.A., and White, D.J., 1995, Crustal structure and tectonics of the southeastern Canadian Cordillera: Journal of Geophysical Research, v. 100, p. 24,255–24,273, doi:10.1029/95JB02632. [9]
- Zelt, C.A., Hojka, A.M., Flueh, E.R., and McIntosh, K.D., 1999, 3D simultaneous seismic refraction and reflection tomography of wide-angle data from the central Chilean margin: Geophysical Research Letters, v. 26, p. 2577–2580, doi:10.1029/1999GL900545. [9]
- Zelt, C.A., Sain, K., Naumenko, J.V., and Sawyer, D.C., 2003, Assessment of crustal velocity models using seismic refraction and reflection tomography: Geophysical Journal International, v. 153, p. 609–626, doi:10.1046/j.1365-246X.2003.01919.x. [9] [10]
- Zeyen, H.J., Banda, E., Gallart, J., and Ansorge, J., 1985, A wide angle seismic reconnaissance survey of the crust and upper mantle in the Celtiberian chain of eastern Spain: Earth and Planetary Science Letters, v. 75, p. 393–402. [2] [7]
- Zeyen, H.J., Novak, O., Landes, M., Prodehl, C., Driad, L., and Hirn, A., 1997, Refraction-seismic investigations of the northern Massif Central (France), in Fuchs, K., Altherr, R., Müller, B., and Prodehl, C., eds., Stress and stress release in the lithosphere—structure and dynamic processes in the rifts of western Europe: Tectonophysics, v. 275, p. 99–118, doi:10.1016/0012-821X(85)90182-7. [2] [9]
- Zhang, P.-Z., and Klemperer, S.L., 2005, West-east variation in crustal thickness in northern Lhasa block, central Tibet, from deep seismic sounding data: Journal of Geophysical Research, v. 110, B09403, doi:10.1029/2004JB003139. [9]
- Zhang, S., et al., 1988, Interpretation of the Menyuan-Pingliang-Weinan DSS profile in West China, in Developments in the Research of Deep Structures of China's Continent: Beijing, Geological Publishing House, p. 61–88. [8]
- Zhang, Z., Yang, L., Teng, J., Badal, J., and Harris, J.M., 2005, Mirror-image symmetry between sedimentary basins and consolidated crust in China: Menlo Park, California, U.S. Geological Survey, Office for Earthquake Studies, unpublished report, 30 p. [8]
- Zhao, J., Mooney, W.D., Zhang, X., Li, Z., Jin, Z., and Okaya, N., 2006, Crustal structure across the Altyn Tagh Range at the northern margin of the Tibetan plateau and tectonic implications: Earth and Planetary Science Letters, v. 241, p. 804–814, doi:10.1016/j.epsl.2005.11.003. [2] [9] [10]
- Zhao, L.-S., Sen, M.K., Stoffa, P., and Frohlich, C., 1996, Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet: Geophysical Journal International, v. 125, p. 355–370, doi:10.1111/j.1365-246X.1996.tb00004.x. [2] [9]
- Zhao, W., Nelson, K.D., and Project INDEPTH Team, 1993, Deep seismic reflection evidence for continental underthrusting beneath Tibet: Nature, v. 366, p. 557–559, doi:10.1038/366557a0. [2] [9]
- Zhao, W., Mechie, J., Guo, J., Wenzel, F., Meissner, R., Ratschbacher, L., Steen-toft, H., Husen, S., Brauner, H.-J., Jiang, D., Frisch, W., and Hauff, S.-F., 1997, Seismic mapping of crustal structures beneath the Indus-Yarlung suture, Tibet: Terra Nova, v. 9, p. 42–46, doi:10.1046/j.1365-3121.1997.d01-7.x. [2] [9]
- Zhao, W., Mechic, J., Brown, L.D., Guo, J., Haines, S., Hearn, T., Klemperer, S.L., Ma, Y.S., Meissner, R., Nelson, K.D., Ni, J.F., Papanont, P., Rapine, R., Ross, A., and Saul, J., 2001, Crustal structure of central Tibet as derived from project INDEPTH wide angle seismic data: Geophysical Journal International, v. 145, p. 486–498, doi:10.1046/j.0956-540x.2001.01402.x. [2] [9]
- Ziegler, P.A., ed., 1992a, Geodynamics of rifting, volume I. Case history studies on rifts: Europe and Asia: Tectonophysics, v. 215, p. 1–363. [2]
- Ziegler, P.A., ed., 1992b, Geodynamics of rifting, volume II. Case history studies on rifts: North and South America and Africa: Tectonophysics, v. 213, p. 1–284. [2]
- Ziegler, P.A., ed., 1992c, Geodynamics of rifting, volume III. Thematic discussions: Tectonophysics, v. 215, p. 1–253. [2]
- Zoback, M.D., and Wentworth, C.M., 1986, Crustal studies in central California using an 800-channel seismic reflection recording system, in Barazangi, M., and Brown, L., eds., Reflection seismology: a global perspective: American Geophysical Union, Geodynamics Series, v. 13, p. 183–196. [8]
- Zucca, J.J., and Hill, D.P., 1980, Crustal structure of the southeast flank of Kilauea volcano, Hawaii, from seismic refraction measurements: Bulletin of the Seismological Society of America, v. 70, p. 1149–1159. [7]
- Zucca, J.J., Hill, D.P., and Kovach, R.L., 1982, Crustal structure of the Mauna Loa volcano, Hawaii, from seismic refraction and gravity data: Bulletin of the Seismological Society of America, v. 72, p. 1535–1550. [2] [7]
- Zucca, J.J., Fuis, G.S., Milkereit, B., Mooney, W.D., and Catchings, R.D., 1986, Crustal structure of northern California from seismic-refraction data: Journal of Geophysical Research, v. 91, p. 7359–7382, doi:10.1029/JB091iB07p07359 [2] [8]
- Zurek, B., and Dueker, K., 2005, Lithospheric stratigraphy beneath the Southern Rocky Mountains, USA, in Karlstrom, K.E., and Keller, G.R., eds., The Rocky Mountain Region: An evolving lithosphere—tectonics, geochemistry, and geophysics: Washington, D.C., American Geophysical Union Geophysical Monograph 154, p. 317–328. [9]
- Zverev, S.M., ed., 1967, Problems in deep seismic sounding: New York-London, Consultants Bureau, 166 p. [6]
- Zverev, S.M., and Kosminskaya, I.P., eds., 1980, Seismic models of the lithosphere for the major geostructures on the territory of the USSR: Moscow, Publishing House Nauka, 180 p. [2] [7]
- Zverev, S.M., and Tulina, Yu.V., eds., 1971, Deep seismic sounding of the Earth's crust in the Sakhalin-Hokkaido-Primorye zone: Moscow, Nauka, 286 p. (in Russian). [6]
- Zverev, S.M., and Tulina, Yu.V., 1973, Peculiarities in the deep structure of the Sakhalin-Hokkaido-Primorye zone, in Mueller, S., ed., The structure of the earth's crust, based on seismic data: Tectonophysics, v. 20, p. 115–127. [6]
- Zverev, S.M., Litvinenko, I.V., Palmason, G., Yaroshevskaya, G.A., Osokin, N.N., and Akhmetjev, M.A., 1980a, A seismic study of the rift zone in northern Iceland, in Jacoby, W., Björnsson, A., and Möller, D., eds., Iceland: Evolution, active tectonic, and structure: Journal of Geophysics, v. 47, p. 191–201. [7]
- Zverev, S.M., Litvinenko, I.V., Palmason, G., Yaroshevskaya, G.A., and Osokin, N.N., 1980b, A seismic study of the axial rift in southwest Iceland, in Jacoby, W., Björnsson, A., and Möller, D., eds., Iceland: Evolution, active tectonic, and structure: Journal of Geophysics, v. 47, p. 202–210. [7]

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